

SUMMER 1979

Search & Rescue

MAGAZINE

THE OFFICIAL PUBLICATION OF THE NATIONAL ASSOCIATION FOR SEARCH AND RESCUE



IT ALL COMES
TOGETHER
WITH NASAR

VICTIM

Federal Agencies

State Agencies

Individual & Organizational Members

IT ALL COMES TOGETHER
WITH THE NATIONAL ASSOCIATION
FOR SEARCH AND RESCUE
NASAR

SEARCH AND RESCUE MAGAZINE

P. O. Box 153
MONTROSE, CA. 91020

Maj. Jerry Wellman
840 E. 6th Avenue
Salt Lake City, UT 84103

BULK RATE
U. S. POSTAGE
PAID
PERMIT NO. 181
Montrose, Ca. 91020

WET & WILD CAJON STYLE - NASAR 79

This article is specifically about NASAR '79, the National Association for Search & Rescue (NASAR) Annual Conference in Baton Rouge, Louisiana September 13-16. However, first a brief comment on this special NASAR edition is appropriate. The theme of this issue the 4-Leaf Clover suggests how fortunate it is for this nation's SAR victim that Federal, State and local agencies and volunteers are now working so closely together. In fact, this issue breaks out the aspects of NASAR; the victim, the Feds, the States and individual and organizational members. Articles on each aspect of NASAR follows to enhance the broad cooperative scope of 1979 NASAR.

The excitement of NASAR 79 is intensifying as we realize September 13-16 approaches. NASAR's annual national conference is at Baton Rouge, Louisiana this year and it promises to be the best yet. It is the one conference where all facets of the SAR scene portrayed by this NASAR issue's the Fed's, State's Individuals and Organizations all do really get together for the potential victim's benefit.

New FEMA Chief

Some exciting highlights of NASAR 79's agenda follow. The tentative keynote speaker is the brand new director of the Federal Emergency Management Agency (FEMA), John Henry Macy.

1st Ever Joint Demo

The first ever joint exercise by the USAF, AFRCC, USCG, CAP, Louisiana State and local volunteer SAR resources will occur at the conference. A simulated person in distress on water with an ELT will be demonstrated. The scenario will include an alert, a search, a rescue and a scuba recovery.

Suspended Maneuvering Platform

High rise rescue techniques will be demonstrated with the

helicopter suspended self-maneuvering platform. This mechanized prototype platform may in fact revolutionize rescue as we know it.

Bird's Nest

The conference has such potent as a SAR gathering that it is estimated that perhaps as many as ten (10) helicopters at one time will be on display simultaneously. This will include USCG, MAST, ANG, etc.

Lady's First

Not to be forgotten an outstanding agenda for the spouses is programed including: tea at the Governor's Mansion, luncheon at the ancient plantation and a tour of the state capitol.

Traditional Skills

Dog team and tracking workshops optimize the continued emphasis on individual skills to be presented. These skills are the backbone of hands-on SAR and will be enhanced again this year because of their importance. But there is much, much more to look forward to.

For States

Col. Larry Butera, USAF, Director of Inland SAR, is putting together a special program on "States Problems in SAR" specifically for State Representatives on Thursday afternoon September 13. Based upon the recent developments in local legislation this should be most interesting.

Best Ever?

Finally, it was stated up front that this conference may be NASAR's best yet. However, like most things it is no better than one's own input and involvement. Make your commitment now. Use the registration form found in this issue to sign up right now. Don't put it off. Be a part of this year's biggest SAR event! ●

DIRECTION FINDERS FOR SEARCH & RESCUE

If you're serious about search and rescue, you want the best, most dependable and proven equipment available for a fast find. When you need a direction finder for ground, air, or marine SAR, think of L-Tronics.

Over 1,000 of our units are in the field being used to save lives by people representing the full spectrum of SAR: USAF, USCG, FAA, State Departments of Aeronautics, CAP, USCG Auxiliary, sheriffs' air and ground resources, mountain rescue teams, amateur radio operators, and others.

Prices start at about \$200 and all equipment is factory built, complete, ready to use. They are backed by warranty, factory service, and assistance from the experienced L-Tronics staff. Write for free brochure.

L-TRONICS, 5546 Cathedral Oaks Rd.
Santa Barbara, CA 93111 Attn: SAR Dept.

B & B

FOR THE FINEST GEAR IN SAR

GIBBS
PMI rope
GOLDLINE II
carabiners
slings & webbing
climbing helmets
racks & brake bars
pulleys & flashlights
electric headlights
and much more

WRITE
FOR
PRICE LIST

B & B
P.O. Box 441-R
Lewisburg, WV 2490
(304) 772-5049

Search & Rescue

MAGAZINE

Table of Contents

SUMMER 1979

FEATURES

	2	NASAR 79
S. Hudson - T. Vines	4	DEVELOPMENT & DESIGN OF STATIC CAVING/RESCUE ROPE
	9	MULTIORGANIZATIONAL COORDINATION
Bill Wade	17	TO SAVE A LIFE
J. E. (Jim) Maher		A POINT OF VIEW
Jon Gunson	18	ANOTHER FORM??!! WHO NEEDS IT??!!

DEPARTMENTS

	21	LETTERS TO THE EDITOR
Rick LaValla	22	LA VALLA ON SAR
	23	CALENDAR
Dennis Kelley		PUBLISHER'S FORUM

SEARCH AND RESCUE MAGAZINE, FALL, 1979. All rights reserved. Reproduction without consent of the Publishers forbidden. Search and Rescue is published Quarterly. Return Postage must accompany all manuscripts, photos and drawings if they are to be returned. All above items are solicited for submission to the editor. Desirable articles include but are not limited to: Survival or dramatic situations, first hand search and rescue experience, technical and "how to" articles of interest to the search and rescue community; photographs of rescue operations. Contributors payment rates are defined in Writers Market or are available from the Publisher. Copyright 1979. Advertising rates on request.

PublisherDennis E. Kelley
 Consulting Editor Lois McCoy
 Advertising Vicki Richardson
 Jenise Riley
 Production Marion Christner
 Harold Alwes

MANUSCRIPTS
 SUBMITTED FOR
FALL ISSUE
 MUST BE RECEIVED
 BY THE EDITOR
 NO LATER THAN
JULY 16

SEARCH AND RESCUE MAGAZINE
 P.O. Box 153, Montrose, CA 91020
 (213) 248-3057

EDITORIAL BOARD

Lois Clark McCoy — Administrator
 National Association for Search and Rescue
 (NASAR)*

Arthur G. Jones — President, NASAR
 Louisiana Aviation Safety Officer

Peter R. Jensen — 1st Vice President, NASAR
 RECRO, Wisconsin

Bill Wade — 2nd Vice President, NASAR
 Assistant Chief Ranger, Great Smokey
 Mountains National Park, Tennessee

Tom Staadt — Secretary/Treasurer NASAR
 Illinois State SAR Coordinator

ADVISORY PANEL

Emergency Medical —
 Stan Bush, Colorado SAR Board
 President

Training —
 Bill Wade, Great Smokey National Park
 Assistant Chief Ranger, Tennessee

Communications —
 Rick Goodman, New Mexico SAR
 Coordinator

Survival —
 Gene Fear, Survival Education Assn.
 President, Washington State

Data Collection —
 Maj. Bob Mattson, USAF, CAP Liaison,
 Alabama

Equipment —
 Jon Gunson, Summit County Rescue
 Group, Colorado

Mountaineering —
 Bill March, University of Calgary,
 Physical Education Facility.

Cave —
 Tom Vines
 Appalachian Search & Rescue Conference

*The NATIONAL ASSOCIATION FOR SEARCH AND RESCUE (NASAR) is a national organization, non-profit and non-political, dedicated to the support and assistance of the national SAR community.

THE DEVELOPMENT AND DESIGN OF STATIC CAVING/RESCUE ROPE

Steve Hudson
President,
Pigeon Mountain Industries

Tom Vines
Chairman, NASAR
Technical Rescue Committee

Ancient History: the '50s and '60s

The development of static ropes can be traced to the needs of cavers, who often require specialized line to descend into and ascend out of vertical caves or 'pits.' For mountaineers, much of the thrill and satisfaction of the ascent is the climb itself. But, because of the nature of cave rock — often decayed limestone — the configuration of vertical openings — often bell shaped — and the purpose of entering the pit — the exploration of the lower cave — vertical cavers travel most often by single rope techniques.

In the early days of cave exploration, cavers were lowered, pulled, winched up and down drops, used unstable rope or cable ladders. . . or completely avoided verticals. By the early 1950's, cavers had begun to employ single rope techniques copied from mountaineers of the time, methods such as the carabiner wrap rappel and prusik knots on laid natural fiber ropes. They were beginning to get to their destination, but much was still lacking in efficiency and safety.

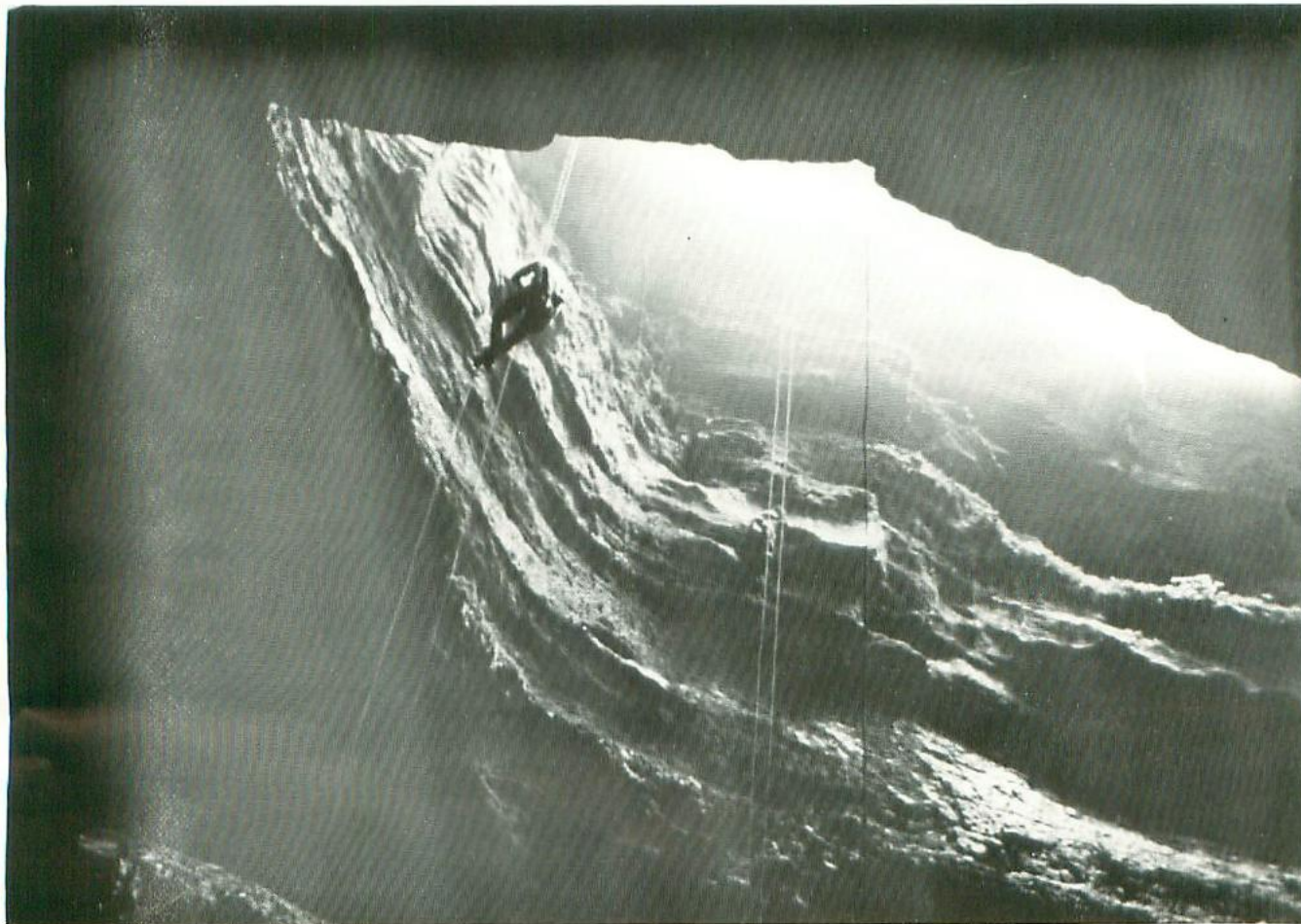
Much of the development of vertical caving can be credited to

Southeastern U.S. cavers, such as Bill Cuddington and John Cole, the inventor of the rappel rack. As mountaineers had discovered (and as rescue squads are now discovering) natural fiber ropes have structural weaknesses, a susceptibility to rot, are easily abraded, and have a poor weight-to-strength relationship. As natural fiber ropes were replaced by nylon, Goldline (TM), manufactured by Plymouth, became the standard for most vertical cavers.

But Cuddington and others did not appreciate the spin that was inherent in laid nylon ropes, and which was pronounced in a free rappel — when one is not touching the walls. As cavers ventured into the 250-400 deep pits of the Southeast and the 1100 feet plus pits in Mexico, the spin became a critical factor. It was a standing joke that it was dangerous to stand at the bottom of a pit, not only because of rock fall, but because you were liable to be puked on by the caver dizzily spinning above you.

Bill Cuddington and others began looking for rope that would be strong enough, would not spin and was available in lengths to rig the deepest pits. (European Kernmantle ropes were not generally available in lengths over 165 feet.)

After trying several products, Cuddington settled on a marine braid-on-braid type constructed by Samson Cordage. This construction provided a rope with little spin and was available in long lengths. Samson (TM) remained popular with cavers from the mid 1960's to the early '70's when there was growing dissatisfaction with this type of rope. Some claimed that this type of rope was susceptible to abrasion (though this may have occurred more



among the 'yankee' cavers — i.e., those from Virginia — who, it was alleged, were less meticulous about rope padding than their Southern brothers). Also, in order to facilitate splicing, and to create a rope that was flexible and easy to handle, many marine ropes, such as Samson (TM), have a sheath that is loose on the core. This raised the possibility that, if the sheath were suddenly braded through as one neared the top of a climb, then a prusik knot could slide down the rope to the bottom, taking with it a pile of sheath and the climber tied to the knot — not the sort of surprise that one looked forward to.

The stretch at low load of both the Goldline (TM) type and the Samson (TM) type ropes were a handicap to cavers. Because of the stretch in these ropes, a prusiker would have to climb a good distance of rope before he ever left the bottom. Depending on his weight, a climber might have to climb an extra seven to ten percent of the distance rigged due to stretch. On a 500 to 1,000 foot pit, this could create quite a bit of extra work.

Like the mountaineering world of this time, the period of the '60s were for the vertical caver a period of ferment and discovery. Pits once thought impossible were, one after another, being dropped. It was a time of spectacular achievements, of some flashy individual

acts and, like in mountaineering, some rivalries and conflicts (the 'Cave Wars') resulting in occasional bitterness that sometimes persists to this day. But it was also a golden age in the development of vertical techniques and equipment. Ascending techniques, such as the 'Texas,' the 'Mitchell,' the 'Cuddington,' and the 'Floating Cam' systems were developed. All styles of ascending and descending gear were being tried. Many of these are best relegated to the museum, but reliable ones, such as the rappel rack and the Gibbs Cam remain standards and have found their way into surface rescue work. In the Vertical Section of the National Speleological Society and at regional cave meetings there was a sense of excitement and discovery. The greater caves were waiting, the techniques and equipment were waiting, the cavers were hot. What was needed was the rope.

In 1967, a group of cavers from West Georgia College began using a rope called 'Bluewater,' manufacturer by West Georgia Mills. This was a marine rope with a 'one over one under' sheath construction on a continuous core. Because the continuous (parallel) core fibers had little let out on loading, the rope had low stretch. Because of the one over/one under construction, the sheath produced small 'picks' (we'll get to this later) that were

CONTINUED...

MOUNTAIN HOUSE®

Security Pak for any emergency

TEKNA-LITE



Virtually indestructible ABS plastic and polycarbonate body.
Foolproof rotating switch.
1300 candlepower.
5.5 in. long and 1.25 in. diameter.
4 oz. weight (with batteries).
4 hours running with Alkaline batt.
Lanyard hole, can be hung like lantern.
Completely waterproof to 2000 feet.
Light so you will have it with you,
Tough enough for the worst conditions.

This introductory offer includes
TWO AA DURACELL ALKALINE BATTERIES

Send me _____ TEKNA-LITE (s) @ \$9.95
each. Enclosed is my check for \$ _____

Name _____

Street _____

City _____

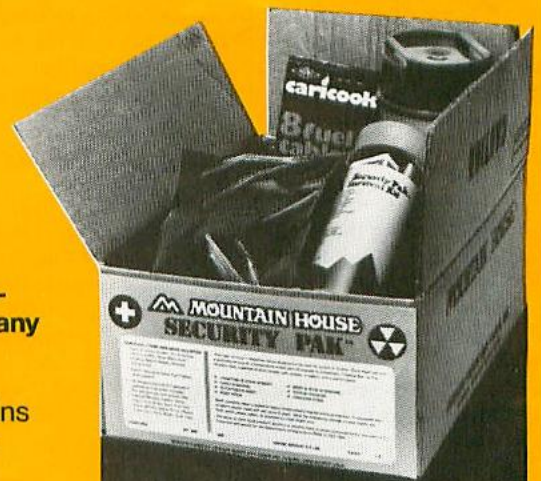
State _____ Zip _____

P. O. Box 6602 Santa Barbara CA 93111
Equipment for Mountain Rescue

California Mountain Company

Carry lightweight Security Pak in your car, boat, plane, RV... keep it at home or vacation cabin. It's ideal for any emergency situation, anywhere.

One Security Pak contains seven packages of delicious freeze dried and other foods, each a complete meal. The second choice (as pictured) includes 7 meal packages plus a survival stove with containers, solid fuel tablets and other basic survival items. Food will last for years if unopened and stored properly. Use only hot water to prepare in just minutes.



Dealer inquiries invited

Available at outdoor and survival food stores in the United States. For full information, send stamped (28 cents) self-addressed envelope to Oregon Freeze Dry Foods, Inc., Dept. SR, P.O. Box 1048, Albany, Oregon 97321.

MOUNTAIN HOUSE®



CONTINUED.

braided tightly together to produce good abrasion resistance. It had the qualities that cavers had been looking for: low stretch and ruggedness.

Unfortunately, this rope was discontinued by West Georgia Mills in 1968. In 1969, Georgian Richard Newell purchased the machinery with which the Mills had used to manufacture 'Bluewater.' With the help of several other cavers at West Georgia College, Newell began to produce Bluewater II (TM). The first rope was basically the same as the original 'Bluewater,' but was made with a gold sheath and a single dyed blue stripe. Over the next year, refinements were made to the original Bluewater design to further improve the rope. In the Fall of 1976, some former Blue Water Ltd. salesmen, along with other cavers, formed a rival company, Pigeon Mountain Industries, Inc. (PMI).

At present, American Cavers are preeminent in single rope techniques, but other cavers of the world seem to be moving in this direction. Even the English, those lovers of antiquated institutions, have begun to put aside their beloved cable ladders and are taking up SRT, are attempting their own ascending techniques and are experimenting with ropes. But, for the present, the Americans are the world leaders, and the two rope companies begun by Georgia Cavers', Blue Water Ltd, and PMI Industries, remain the leading producers of static rope.

Judging a Rope

Prolonged discussions seem to surface eventually in every rescue group concerning the merits of each rope. The fact is, each rope is designed for a specific use for specific conditions, so the answer may be that — unless the group is concerned only with very specialized conditions — they may want more than one type of rope to cope with varying rescue demands. The important thing is not to judge a rope by its looks. Before purchase, and certainly before using, a rescuer must know the qualities of the rope and the limitations of its construction and material. This knowledge may save not only the victim's life, but the rescuer's as well.

Materials

The greatest disadvantage with materials such as manila is that they will rot with age and, even when new, they have low strength per pound. Since they are not able to withstand repeated loads, the cause of failure of natural fiber rope is often the breakdown of internal rope fibers, rather than external abrasion.

Dacron (TM) is the trade name for one type of DuPont's polyester fiber. It has low elongation, even at loads near breaking strength, so it may not be a wise choice for frequently repeated loads and shock loads.

However, Dacron (TM) has high resistance to ultraviolet rays, and its strength is not affected by water. These qualities make Dacron (TM) ropes well suited to conditions where low stretch and resistance to sunlight deterioration are desired, and where size and weight of the rope are not prime considerations. This is why it is often used for harbor tow lines, anchor lines, and other marine applications.

Nylon is also a manufactured fiber. But it does not have as much UV resistance as Dacron (TM) and, unlike Dacron (TM), nylon

loses about five percent of its strength and energy-absorbing properties when wet² — a fact to be considered by rescue personnel as they are merrily pouring water on rope passing through hot braking systems. But nylon absorbs about 15,600 footpounds per pound of dry rope³, and it can absorb better than twice the load of Dacron (TM) per pound when both are wet⁴. These considerations, and because of its inherent elongation properties, are why nylon is almost universally chosen for climbing, caving and wilderness rescue applications.

The word nylon is like the word *soda-pop*. . . it comes in many types, depending on whether one is making washing machine parts or ropes. **Perlon** is NOT a term indicating a type of rope construction, but is a German trade name for nylon, while **Grilon** is a Swiss name for nylon; they are all basically the same material.

Though there are many types, forms and qualities of nylon, **filament type** is the variety of nylon used in ropes and cordage. There are two major make-ups of filament nylon: 'type six' and 'type six-six,' both with similar properties and characteristics. The major difference that effects rope is that type six-six has a slightly higher melting point and higher breaking tenacity. There are standard and high tenacity versions of both, but rope should be made with high tenacity yarn.

When the filament nylon is spun at the manufacturing plant, it is usually separated into qualities based on filament breakage. Yarn with low filament breakage is stronger, harder to manufacture and, consequently, more expensive. Ropes for giant marine dock lines usually use the lesser quality yarns, while the nylon cord tire industry usually gets the best qualities. General use ropes and special purpose ropes, such as climbing ropes, are made with various qualities of yarn depending on the manufacturer.

Finish is the last variable in the type of nylon, and manufacturers put different finishes on their nylon yarns for different effects. DuPont's 'type 707' and 'Super 707,' for example, are described as 'cordage' finishes. Other finishes are available for uses other than cordage and ropes.

Kernmantle

This is a German word derived from combining Kern=core and mantle=sheath, and is used to describe ropes that are made with a sheath braided around a core structure. There are many designs of core and many types of braids, and many combinations of core construction materials and sheaths are possible. Some of the more popular are:

- 1) Braided sheath on a solid braid core.
- 2) Braided sheath on a twisted core.
- 3) Braided sheath on a continuous straight core.
- 4) Other variations, such as a braided sheath on a core of three laid solid braid core packages.

The Sheath

Types of sheath braid differ by the design of the construction — how the bundles of fiber are interlaced with one another. The two most common are: (a) one over/one under and (b) two over/two under. The number and size of sheath fiber bundles used also affect the characteristics of the braid. A 16 carrier braid of one over/one under construction will have eight fiber bundles running clockwise and eight running counter-clockwise, so that one bundle passes over another bundle running in the opposite direction, alternating after each package. Since the sheath looks like a diamond pattern, this is called a 'diamond braid.' A 16 carrier braid of two over/two under will have four sets of two parallel carrier packages clockwise and four sets of two running counter-clockwise, alternating every other package, and is called a 'herringbone braid.'

The length of fiber bundles running between each braid is called a 'pick.' The number of picks per inch of a rope sheath plays a great part in the abrasion resistance of the rope. The fewer picks per running inch, the less yarn in the sheath and, also, the longer a single fiber runs exposed to the outside before it is locked in by the next braid.

So, with a one over/one under construction, for example, the picks will be more and, therefore, less prone to abrasion. On the

other hand, a two over/two under construction will have fewer picks, exposing more yarn and resulting in more abrasion.

The size, or 'denier,' of the sheath bundle is also important. The thicker the sheath, the more yarn there is to wear away before the core is affected.

Nylon fiber under tension cuts much easier than unloaded fibers, therefore, kernmantle ropes which carry most of their load on the core are protected by a lesser-loaded sheath. Consequently, the lesser-loaded sheath is harder to cut or abrade than the outside fibers of a non-kernmantle rope.

You may have noticed that a fuzz builds up on the outside of synthetic rope. This is actually broken fibers which act as a protective cover to the rope. Once they are broken, they become much harder to break further because they are now unloaded. This fuzz is helpful and will lengthen the life of your rope — if you build it up slowly. Eventually, it will reach a point where the rope is 'broken in' and will then be much more stable and resistant to wear. DO NOT, however, mistake a badly frayed or abraded rope for this protective fuzz. If you suspect your rope to be damaged, CUT IT. Don't prove yourself right the wrong way.

Layed Rope

Layed ropes of course do not have a protective sheath. Typically, they consist of three large strands twisted together. Each of these are made up of bunches or bundles, which are in turn made up of bundles, and so on, down to individual twisted strands. The disadvantage of this construction is that each of these load-bearing strands will somewhere in the length of the rope likely be exposed to abrasion. One advantage of laid rope is that internal damage may be more easily discernable than in kernmantle ropes. A layed rope can be twisted open for inspection, and, if a person is knowledgeable in rope construction and knows what he is looking for, then he may be able to find any damage. In a laid rope, the fuzz that builds up on the surface is a bigger problem than in kernmantle ropes because the broken fibers are also the main load-bearing fibers, and represent more of the total breaking strength of the rope.

Stiffness and Ease of Handling

Stiffness is also determined by material and construction. While natural fiber ropes tend to become very stiff with age, synthetic ropes do not change as much.

In a braided rope, stiffness is determined by tension used on each sheath fiber bundle as the rope is braided. The greater the tension on the braider bobbin, the stiffer the rope. On a laid rope, the amount of tension applied to the individual lays as the rope is twisted together through the dies determines the stiffness. Limp ropes are twisted or braided with very little tension on the bobbin, thus the rope has a looser lay or looser sheath. A very limp rope is easy to tie knots in, but is more susceptible to getting dirt in its interior, which can abrade the rope from the inside as it is used. Obviously, a compromise must be made between a very stiff rope, which would be more resistant to abrasion, for instance, and a very limp rope. This is one of the decisions the user must make based on the intended use.

Stretch

Contrary to the preceptions many people have, stretch is determined primarily by **method of construction**, not by materials — as long as we are talking about nylon ropes.

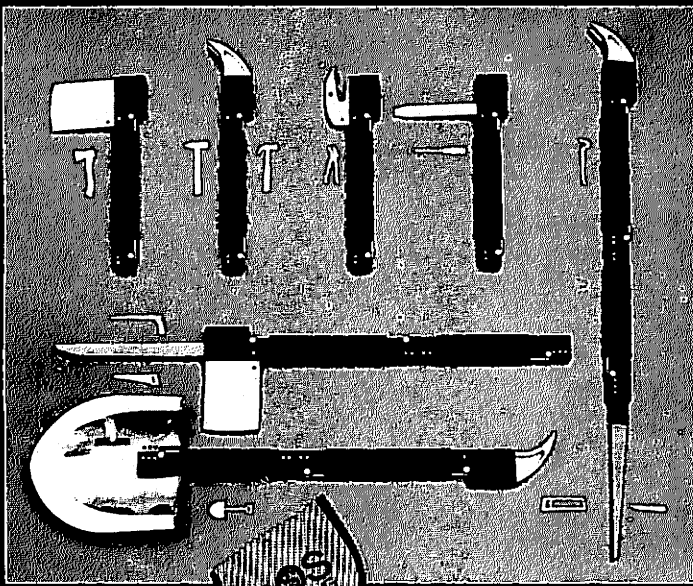
All new ropes will lengthen some under load the first time, and will keep some of this 'permanent stretch.' Straight nylon stretches only about 17 percent at break. A static rope that is used by cavers is continuous run fiber, so that its stretch is pretty much in the nylon itself.

All other kinds of stretch comes from mechanical 'let out,' such as twisted fibers and lays un-twisting as the load increases; it is not unlike one of those 'Chinese finger traps' you had as a kid, with the braid getting longer and tighter on the core as you pull harder and harder. The usual kernmantle dynamic rope has a braided core or multiple braided cores together. It is this construction that accounts for the stretch (and the expense) which may be fifty percent.

In mountaineering, a stretchy or dynamic rope is a must. The built-in stretch is used to help absorb the load of a falling climber.

CONTINUED...

SOS RESCUE & SURVIVAL TOOL



In a rescue or survival situation, if you have to Chop It, Saw It, Cut It, Hammer It, Pry It, Dig It and more, the SOS can do it!

This unique, lightweight, (6 lbs. complete) emergency rescue and survival tool kit combines a variety of common, standard type tools including axe, chisel, claw, hammer, knife, screwdriver, wire cutter, saw (for wood and metal), sheet metal cutter and spade (a snow shovel attachment is an available option).

The entire unit fits in a compact holster style case that can easily be carried or worn on a belt. In an emergency situation, it can be assembled to the necessary tool required through a series of color coded recessed dots located at points where pieces should be joined. These pieces snap on simply, easily and efficiently, (even in the dark).

The SOS is a perfect tool for everyone involved in the field of search and rescue and especially for those working in remote locations under adverse conditions.

Write today for more information!

Partner Industries
of America
Manufactures a
Complete Line of Rescue
and Forcible Entry
Tools . . . Dealer Inquiries Invited.



**Partner Industries
of America, Inc.**

1025 Lambrecht Road, Frankfort, Illinois 60423
Telephone (815) 469-3911 TELEX 723-445

your rope work and rescues in a laboratory, and never tie it to anything smaller in diameter than an elephant or sharper than a sponge. For the real world, find out what the rope breaks at on a given knot (such as a bowline) or on a carabiner. This is where you will be using the rope.

Rope Care

When rigging, pad the rope at any point of contact that might abrade it, and avoid sharp bends and objects. Never store a rope in sunlight, since ultraviolet radiation will shorten the life of any nylon product. Some strong chemicals may weaken or severely damage nylon, so avoid products, including markers, that contain benzene, phenol (pine oil cleaners), carbon tetrachloride, formaldehyde and gasoline. Be particularly careful when carrying rope in a vehicle, since there are all sorts of substances, from battery acid to petroleum products, that can cause problems. We thought that every climber, caver and rescue person knew this, but ever so often we see someone evidently not informed: NEVER walk or stand on ropes. The ground-in grit can cause hidden internal damage. And, of course, anyone who tows cars or otherwise overloads a rope with heavy objects is being particularly foolish, for they could be setting up a fatal accident the next time the rope is used.

Nylon that is used in rope can tolerate a wide variety of temperatures — at least those which naturally occur on earth. It does not seem to be adversely affected by low temperatures encountered in mountaineering, but there have been questions raised about the results of a rope absorbing water and then being frozen and subjected to flexing. We have seen no test data on the subject and those people knowledgeable in ropes seem to disagree among themselves, but it does seem conceivable that ice crystals inside a hard frozen rope could cause internal damage when the rope is flexed.

Nylon manufacturers apply a kind of lubricant to their yarns so they can be easily handled by machinery. This is why new ropes may have a strange feel to them and why they rappel faster than when they are worn, so many people like to wash their rope before they use it. Cold water and a mild detergent will remove a great deal of this chemical.

A dirty rope cannot only inflict damage on itself, but cause wear on equipment it passes through. Rope can be washed with clean, cold water, and there are commercial rope washers on the market. If you decide to use warm water, be aware that there will be some shrinkage — probably on the order of two percent. That is why some rope manufacturers throw in an extra two percent or so to the length you buy — to allow for this shrinkage. As for machine washing, there are probably as many approaches as there are rope owners, but some basic rules are: avoid hot water, use mild soap, avoid washers with central rotating agitators that will tangle and damage, bundle or coil the rope so it does not tangle, do not crowd ropes into a machine, avoid front-loading commercial washers with plastic windows (the friction of the nylon hitting the plastic can cause melting) and do not use chlorine bleach. You can use dyes or fabric softeners, as long as they are labeled 'safe for nylon.' (But if you employ the latter, next time you rappel on the rope, **LOOK OUT**; it's liable to be *real fast*.)

Inspect your rope for damage each time you rig it, and again as it is coiled. If the sheath becomes cut or worn through to the inner core, cut the rope at that point and inspect for damage elsewhere. Avoid running nylon over nylon, since this may cause sudden heat build-up and melting. Never use a static rope in a belay where a climber may fall even a short distance. Because of the low stretch quality of static rope, a short fall could easily injure or kill.

Ropes, like other rescue equipment, are manufactured with specific purposes in mind and with design limitations. Like other equipment, it is necessary to select rope with knowledge of these purposes and limitations, and to employ that knowledge in the use of rope for the most efficient and safe operations.

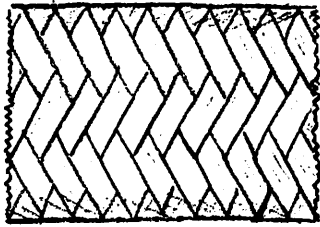
¹Blue Water, Ltd. has since moved its operation to Florida.

²DuPont *Technical Information Bulletin X-99*, February 1959.

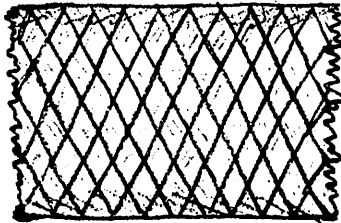
³Ibid

⁴Ibid ●

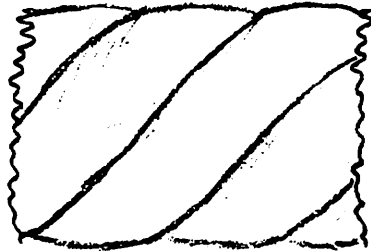
HERRING BONE BRAID



DIAMOND BRAID



LAID ROPE



CONTINUED. . . .

instead of the climber's body, or the belayer, absorbing all the shock.

But stretch is not always welcome in a rescue situation, or when single rope ascending and rappelling. Excess stretch, or 'elongation' (the textile industry term for stretch) in a hauling system means more wasted motion and work on each pull as you take up the stretch on each set. Stretch will cause a prusik climber to bounce up and down with each cycle, losing momentum and wasting energy. In a vertical rescue, it can cause momentary loss of control of the litter as it goes over a lip, loading the rope and causing it to stretch out. On a vertical face, the sudden added weight of the victim or a litter attendant may unexpectedly put several extra feet of rope in the system. In belayed evacuations on slopes, the change in angle on which the litter bearers travel can cause sudden stretch or contraction in a dynamic rope. It can be a very critical factor in tyroleans or hauling systems. In order to stabilize it, rescuers may try to pull all the stretch out of a system that uses dynamic rope; but that might take the rope to the breaking point, so that when a litter and victim are added, the system could fail.

Breaking Strength

Advertised strength of rope can be misleading, so always note how the test was conducted. Some manufacturers, for example, give 'maximum tensile' strength. This is fine if you intend to do all

MULTIORGANIZATIONAL COORDINATION:

IT CAN BE DONE!*

We have had the opportunity to interview a wide variety of agencies such as health services, criminal justice and welfare systems. Unlike many of these however we were impressed by the intensity of the commitment to the victim in the SAR system. The victim had first priority!

**Thomas E. Drabek
Chris Adams
Harriet Tamminga
Thomas Kilijanek**

***Prepared with the support of NSF Grant #ENV 77-14162. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect the views of the National Science Foundation.**

"Lost? No, he knows that area. God, the weather's getting worse. What if he slipped and fell? Oh, quit worrying! He'll be here soon. But what if he's up there hurt — maybe a broken leg or bleeding? Who should I call — the police?"

Perhaps thoughts like these were on her mind that Mother's Day Sunday. Before dawn her husband had left with his camera to capture the sunrise from atop a mountain. Now it was dark. And he had not returned.

Certainly, many will experience similar thoughts in the months ahead. And when it happens, how long should a person wait before calling the police? In this case, nightfall was soon enough.

Quickly, the clues were checked. "Yes, there is a vehicle matching the description at the trailhead of Mount Si." This and related information was processed rapidly by the King County Police Department and directed to its search and rescue coordinator. With morning came his decision. An intense search would be initiated.

SAR is an Elaborate Network of Linkages

But in the State of Washington — as elsewhere, to some degree — such a job is not left for local sheriff's departments to do alone. Rather, elaborate networks of linkages have been built among a diverse array of governmental and volunteer organizations. These units provide invaluable resources which greatly enrich the response capability of the sheriff.

Knowing the Mount Si terrain well — especially the dense foliage wherein an injured person might be lying unseen — the King County SAR Coordinator knew immediately that resources beyond his office would be required. The rain was continuing. Fog was dense. Snow was falling near the top of Mount Si. These conditions added to the problem. Furthermore, near some of the upper trail edges were deep caverns — many of which might remain unseen especially if the hiker had descended after dark.

From among those available to him, the SAR coordinator identified several units, most of whom were members of the King County Search and Rescue Association. Notification was begun.

In order to insure that all participants would be protected financially from any injury incurred, and to secure federal military assistance, the State Department of Emergency Services Office in Olympia was contacted. The duty officer was advised that the mission number assigned previously was now being requested for active status.

As usual, the King County SAR coordinator was reminded that if additional resources were required, the State DES Office could dispatch them. Hence, this office began notification of additional units located nearby, but beyond the geographic boundary of King

County. This boundary circumscribes the limits of the sheriff's authority.

Most Resources are Volunteers

Most were volunteers — Explorer Scout Units (ESAR) from adjoining Pierce County to supplement those called already from King County; a 4x4 rescue group; a German Shepherd Dog search unit; a mountain rescue group; and, to assist with communications, an amateur radio group.

The U.S. Air Force Rescue Coordination Center at Scott Air Force Base in Illinois (near St. Louis) was notified by the State DES duty officer. A federal mission number was assigned by the USAF Rescue Coordination Center which in turn notified U.S. Army FORSCOM (Forces Command) at Fort McPherson in Atlanta, Georgia. Personnel there contacted a U.S. Army helicopter unit at Fort Lewis, directly south of King County. The unit commander was advised that his crew was authorized for immediate deployment to base camp. Specific details regarding the mission were provided by AFRCC personnel at Scott Air Force Base which serves as the coordination center for SAR missions throughout the U.S.

Thus, in a matter of minutes, individuals from a diverse array of organizations were mobilized. All responded to supplement the resources of the King County SAR coordinator. Preplanning had permitted the rapid emergence of an elaborate multiorganizational network.

Throughout four days an intense search effort continued. Due to dense fog and continuing rain and snow, the first three days' activities were primarily ground-based. It was not until the fourth day that blue sky appeared, making air search more productive.

And it was at the end of this day that the search was halted. Nearly 6,000 man-hours had been spent — all leads had been checked. The entire mountainside, plus the adjoining creek bed had been scoured. Aside from the car at the trailhead, no evidence of the hiker had been uncovered. After reviewing alternatives, the King County SAR coordinator terminated the search.

And as they packed up, some pondered. "I wonder where that guy went? Sure strange — no sign of him being in the area at all — except for his car. Makes you wonder."

He Was OK

A few weeks later the puzzle was solved. The lost hiker telephoned his wife from California. He was OK. But he had made a decision. He wasn't coming home. Later still, after more long distance telephone conversations, he returned.

Aside from having to deal with his family, he learned that he was



4X4 RESCUE COUNCIL TRAILER AND MEMBERS.



BEARS AMATEUR RADIO SUPPORTS SEARCH.

EXPLORER SAR TRUCK ON SCENE.



being investigated by the King County Police for perpetration of a hoax. Yet, given Washington Law — as in other states — it remained uncertain what, if any, legal recourse would be available. At this writing, no criminal or civil action was contemplated by King County, and it was rather unlikely that the Attorney General would pursue the matter.

Emergent Multiorganizational Networks

While an important policy issue, this matter is tangential to our concern here. The fact remains — a person was thought to be lost, possibly in need of emergency medical assistance. Based on this assumption, personnel from over sixteen separate organizations were dispatched to Mount Si. But these individuals and other critical resources, like the coordination done through the State DES Office in Olympia, were laced into the emergent multiorganizational network (EMON). Clearly, such networks — EMONS, if you will — are the response systems in most complex SAR missions. No single organization has the capability to handle all aspects of the SAR demands during such instances.

Yet, despite much analysis of how organizations function, these emergent multiorganizational networks (EMONS) have not been studied systematically until recently. Some very useful guides* have been prepared telling us how such remote settling SAR missions ought to be run. And too, informal critiques are often held following SAR missions. But never before has an independent group of outsiders sought to observe several such operations and to compare them. That is what we are doing.

Over the next several months, we will be conducting first-hand field observations and interviews at seven locations. In each, we will document the emergent multiorganizational networks (EMONS) performing SAR activities. One more of these will be like the Mount Si mission — that is, occurring in a remote setting. The other five, two of which have been completed already (Lake Pomona, Kansas — tornado; Texas Hill Country — flash flooding), will be in natural disaster settings. All of this information will be integrated into a short book which we hope will be of widespread interest to the SAR community.

But prior to collecting the remainder of our data, we are analyzing information obtained thus far. While a comparison cannot be made to another SAR mission within a remote setting since we haven't selected it yet, we do feel that we have learned some essentials.

How do our observations about the Mount Si mission compare with your experiences? Hopefully, much of what follows will ring true to experiences of SAR personnel. But they are not our prime audience. We don't expect to tell them much they don't already know. The fact is, however, that many who will confront the challenge of coordinating a large-scale SAR mission, especially following future natural disasters, will be relatively unfamiliar with the job.

It is our hope that our seven case histories — like this one — can provide some food for thought. If so, we will have been successful in our mission!

Study Techniques

Upon receiving an endorsement of cooperation from the Washington State SAR Coordinator,** we interviewed about 60 SAR organizational representatives throughout the state to gain general background on their procedures. This information will be used, along with that being collected now through a SAR policy issues survey of over 400 SAR leaders, in a case study of SAR in Washington State.

In January, 1978, we arranged with the State DES Office to notify us when a large-scale SAR mission was initiated. Because of our multiorganizational focus, we specified the following criteria: (1) a minimum of 100 searchers; (2) local, state and federal organizations involved; (3) duration of at least three days.

On Tuesday evening — the second day of the search — we were alerted that the Mount Si mission was in process. Early the next morning, the State DES Office contacted the mission leader — the King County SAR coordinator. He was advised of our interest. By circumstance, he had been interviewed on our previous trip and recalled our research objectives. Full cooperation was assured.

That afternoon, Drabek and Adams were enroute. They arrived at base camp in the early morning hours (Thursday). Direct field observations were made throughout the day. They were permitted complete access to all command post briefings and decision-making sessions. Without disrupting the work of searchers, they explained the research effort to many of the organizational personnel at base camp. These were conducted by Tamminga and Kilijaneck using an in-depth interview schedule to systematically record data regarding communication flows, decision-making processes, mobilization, and perceptions about coordination, conflict and effectiveness. Without exception, we received excellent cooperation from everyone contacted, even though most of the interviews required about two hours.

Additional information was obtained through a questionnaire completed by each interviewee regarding their own organization — its size, experience level, and the like. Also, various logs, documents, and media reports concerning the mission were obtained.

Thus, we obtained data first-hand from representatives of the sixteen organizations most involved in the Mount Si mission: King County Police, Skagit County Sheriff, Seattle ESAR, Tacoma-Pierce County ESAR, Boeing Company Helicopter, U.S. Army - Fort Lewis, National Guard, Army Aviation National Guard, U.S. Border Patrol, German Shepherd Search Dogs of Washington State, 4 X 4 Rescue Council, the Boeing Employees Amateur Radio Society, Mountain Rescue Council and other Washington ESAR posts.

It should be stressed that individual organizational identities and internal control and authority patterns were retained. Yet, in response to this possibly life-threatening situation, representatives of this diverse set of organizations quickly emerged into a unified, tightly-coordinated tool.

Evidence of Coordination

It is one thing to state that this Emons, unlike some documented elsewhere,*** was tightly coordinated. It is another to specify some evidence. Without detailing the statistical portraits which will be presented in our book, we have identified the following qualities.

• Mobilization:

It was rapid. Within 45 minutes after the State DES was notified to start the official callout, the base camp was operational. Of course, not all organizations were alerted simultaneously. Some were called in later to assist with a specific problem — for example, the U.S. Border Patrol. Among the few pieces of possible evidence found in the search area was a track resembling the tread pattern on a pair of boots purchased by the family to aid in identification.

Due to the terrain and weather, few other tracks were visible. While similar in pattern, the track found was not a perfect match. An expert opinion was needed. The SAR coordinator relayed this information to the State DES Office and requested that transportation be arranged so that a tracking specialist from the U.S. Border Patrol could be consulted. The miles from his office to Seattle — over 100 — were covered quickly by an aircraft provided by the Washington State Aeronautics Board. An awaiting helicopter quickly took him to base camp.

Thus, within a few hours after its discovery, inspection of the print was completed. The judgment offered? Highly questionable. Possible, but not likely to have been made by the hiker in question.

• Division of Labor:

Each organization called to the scene was assigned a specific task. These were precise and understood by each respective unit.

• Decision-making Pattern:

There was no question as to who was in charge — The King County Police were running the show. Everyone interviewed responded identically. At no time did this change. But, reflecting the division of labor in which specific tasks were assigned to the different units, the decision-making pattern of the entire network took on a greater complexity. Within each task area, many decisions were made by the unit head. Thus, different geographic areas were assigned to the two ESAR units with the most personnel and equipment present — Seattle and Tacoma-Pierce County. Each worked their area independently, although members from

other ESAR posts were absorbed into their command. Thus, while there was a centralized authority pattern, smaller groups had discretionary responsibility within various limits established by the SAR coordinator.

The Decision-Making Process was a Team Approach

But while clearly in charge, the SAR coordinator formed a review-consultation team, wherein each unit present had a representative. At least twice daily this core group met to review progress, consider options, and to establish the next set of actions. The final word resided with one man, but the decision-making process clearly was a team approach.

• Control:

Access into the search area was controlled. Within it, various geographic sectors were designated for even tighter security. Participants within each search unit were sensitive to the fact that critical clues might be destroyed if they didn't maintain tight control within the areas assigned to them. This control process paralleled the centralized, but radiating, decision-making pattern.

• Communication:

The emergent pattern was complex. It was consistent with the above processes of division of labor, centralized decision-making and tight control. Each unit present could communicate directly to its own headquarters, either through equipment it controlled or with assistance of the amateur radio group. This insured continuing progress reports at the respective "home offices" so that inquiries regarding the plans of those at the search site could be disseminated without disrupting the mission activities.

Through the regular review meetings, informally at times, and by selectively monitoring the separate radio frequencies of most groups present, the King County SAR coordinator insured a continuing incoming flow of information at his command post. In turn, he maintained direct contact with his own headquarters. Personnel there relayed continuing progress reports to the State DES Office. And as noted above, this office in turn, provided the linkages to the Rescue Coordination Service Center at Scott Air Force Base to secure federal level releases, authorizations and coordination for military participation.

These linkages are graphically displayed in the adjacent diagram — the Web of Communication. Thus, a horizontal pattern linked the county level units to their respective headquarters and other personnel. And a vertical pattern linked the county, state and federal components.

• Expansion of Resources:

This particular EMONS expanded and contracts during its four-day lifespan. Its components varied somewhat from day to day. As with the specialized needs met by the U.S. Border Patrol tracker, a few other groups were summed, used, and then dismissed. The patterns of expansion and contraction were not haphazard. Only those needed were called. Others inquiring were directed to stay away. Once there, they were put to work. And when the specific task was completed, they were encouraged to leave. No one stood around wondering what to do. No one expressed resentment as being "underutilized."

• Conflict:

Despite extensive probing, no one reported instances of serious conflict with other organizational representatives. Only three instances of minor disagreement were reported among all organizations over the entire four days.

Of course, it is difficult to get information about conflict. But our questions have identified areas of conflict in our subsequent studies. Also, this conclusion is consistent with the observations we made in the field on the fourth day. Hence, we have concluded that few conflicts existed within this network throughout its lifespan.

In short then, our various forms of information clearly suggested that this emergent multiorganizational network, with a lifespan of four days, came into existence smoothly and had minimal conflict. As specific task demands became defined, the leader of the network executed the necessary decisions to insure that the desired adaptations took place in a rapid manner. Once the decision to

respond was made, the network was mobilized quickly. It maintained a basic stability until it was dismantled. All of these elements reflect the behavior pattern we loosely label "coordination." Yet, when representatives from numerous organizations come together to solve a problem, we seldom see this degree of coordination.

Key Factors

Why? Why did this EMONS display these features? Why did these varied evidences of coordination appear here?

Much of what has been written stresses — and correctly so, we would argue — the difficulty of multi-unit coordination. Certainly, we don't pretend to have "the answer." But review of our data suggests numerous clues. We have singled out eight which seem to be supported by this case. While based on this specific mission, these concepts reinforce and elaborate upon many of the insights offered by a research team at Iowa State University who sought to identify ways of reducing the barriers to interorganizational coordination.

Domain Consensus

A brilliant observer of organizational managers for years — the late James D. Thompson of Vanderbilt University — emphasized the importance of domain consensus in understanding coordination failures.² By this term, Thompson highlighted the competition among social units to claim a territory. Through numerous bargaining and negotiation strategies, managers seek to have others grant them a given domain. "Everyone has come to expect our organization to handle this type of job."

But while an ideal, the reality doesn't always exist. Thus, despite desires to cooperate with others, Thompson frequently encountered managers who had grown disgusted with multi-unit paper plans. Rarely did they come into fruition behaviorally.

These attitudes have been found among medical service organizations, elements of the criminal justice system, and institutions of higher education. Coordination difficulties have been in all institutional sectors. Rarely are they understood or conceptualized in organizational terms, however. It is much easier to blame individuals.

But the pattern of domain dissensus is too widespread to be attributed to personality quirks. It is not personality defects, but basic disagreements about territory, in a broad sense of that term. Basic differences exist regarding goals, perspectives, and expectations of what the other guy is supposed to be doing.

Typically, Thompson argued, key decision-makers in various units trying to establish a coordinated effort continue to have intense vested interests. There is reluctance to sacrifice their organization's autonomy. There is little awareness of the expectations held by the others involved. The purposes of the multi-unit network remain vague. And their expected role in it is even vaguer. Too often promises are made in good faith, but the resources necessary are not allocated.

Unlike cases documented by Thompson and others, the organizations comprising the Mount Si EMONS had a focused definition of mission which was shared. There was domain consensus. Each knew the purpose of the network. And more importantly, each entered it with at least a general understanding of what others expected from their unit. The resources necessary were committed by each organization.

NEW ITEMS

NASAR Belt Buckle

\$15.98



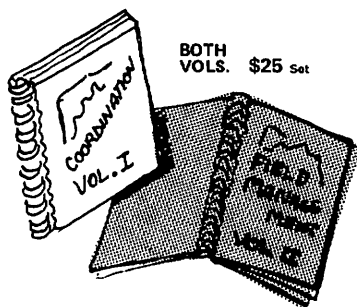
LIMITED EDITION

Fine Pewter Hand Cast A Quality Item.

2 NEW VOLUMES for SAR

PRE-PUBLICATION PRICE

"Joint Operations"
Vol. 1 COORDINATION \$15ea.
Vol. 11 FIELD MANAGEMENT \$15ea.



BOTH VOLS. \$25 set

2 Definitive Collections of the best writings on Search and Rescue — All the information you need to stay on top in your field — compiled and edited by NASAR.

"Get Lost!"
— Support Search & Rescue"

\$7.29



T-shirt

ORANGE M - L - XL

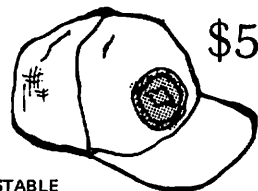
SPECIAL BUY - FINE QUALITY ALL NEW MERCHANDISE.

Summer Sale
2pc. set - \$11.98

SAVE \$1.50 OVER PRE-SALE INDIVIDUAL PRICES. T-SHIRT AND CAP.

NASAR Cap

\$5.49



ADJUSTABLE ORANGE MESH

NASAR GIFTS

Special Summer SALE



NASAR GIFTS
P. O. Box 2123
La Jolla, CA 92038

QUANTITY			TOTAL
_____	T-SHIRTS	@ 7.29 ea.	_____
_____	CAPS	@ 5.49 ea.	_____
_____	T-SHIRT & CAP	@ 11.98 set	_____
_____	BELT BUCKLE	@ 15.98 ea.	_____
_____	JOINT OPS VOLUME I	@ 15.00 ea.	_____
_____	JOINT OPS VOLUME II	@ 15.00 ea.	_____
_____	SET, VOL. I & II	@ 25.00 set	_____
		Sub-Total	_____
		Add 15% of Total for Postage & Handling (If California Resident) Sales Tax 6%	_____
		Total Amount Enclosed	_____

SHIPPING INSTRUCTIONS: To insure proper handling, fill out attached shipping label completely. Please pay by check or money order payable to NASAR Membership Services and allow up to six weeks for delivery.

The National Association for Search and Rescue
Catalogue Store
P.O. Box 2123, La Jolla, California 92038

SHIP TO:

POSTMASTER: This Parcel may be opened for Postal Inspection if necessary. Return Requested.

King County Search and Rescue Association (KSARA)

But domain consensus doesn't just happen. An important mechanism in establishing these mutual expectations and understandings was the continuing forum provided by KSARA. When we inquired about contact frequencies prior to the Mount Si search, most units reported at least monthly interactions with many of the others. Much of this was stimulated by KSARA meetings. We suspect strongly that emergent multiorganizational networks with fewer prior contacts will reflect far less evidence of coordination. There cannot be agreement on expectations unless they are first shared. And KSARA provided an important vehicle for building consensus about domain— consensus on expectations for both entire emergent networks and for each component organization.

SAR Simulation Exercises

All of the units comprising the Mount Si EMON had participated in SAR simulation exercises. But equally important, many had done so together. They hadn't just talked about a division of labor. They hadn't just discussed the respective tasks that each would be expected to perform. They had done it! They had rehearsed together to learn their respective parts.

In many cases they had been on previous missions together. Some of these resembled the challenges presented by the Mount Si mission. In short, through both simulation exercises and actual previous cases, they had established mutual expectations.

Task Competence

Did the tracker really know his stuff? Did the ESAR units really know the proper search techniques? Certainly we are not in a position to make such judgment. But from all we observed, the individuals responding were exceedingly well-trained for their respective jobs.

Equally important, however, were the assessments they gave us of each other. These were offered in strict confidence, of course. But we recognize there was a built-in bias. In such interviews, many will rate others higher than they really think they deserve.

Yet our results were astounding. Representatives from every group perceived the members of each other unit as being exceptionally effective. These shared perceptions of training and technical expertise characterized the entire network. Mutual report was very high. When this exists, we suggest, barriers to multi-unit coordination begin to evaporate quickly.

Interpersonal Expectations.

All people are different. Some are liked more than others, however. While we did not get detailed information on the friendship patterns among all participants in the Mount Si mission, our probes indicated an absence of interpersonal cleavages. Differences in skill levels, interests, and organizational affiliation were recognized. But there was respect for these differences and acceptance of them.

Substantive alternatives were reviewed from time to time. It appeared that interpersonal sentiment provided the glue that kept the analysis on target. Interpersonal sentiment prevented discussion from degenerating into personalized attacks.

Decision-making Style

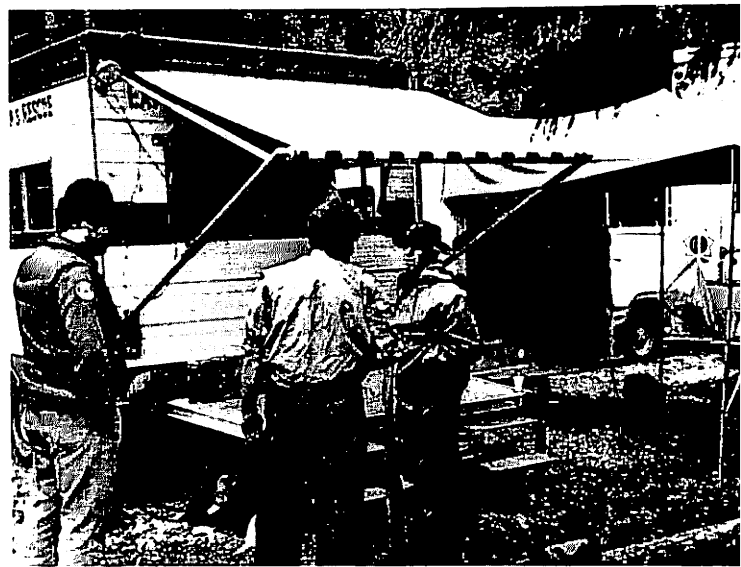
The King County Police SAR coordination — acting under the State authority delegated to all county sheriffs regarding SAR missions of this type — was in charge. But he used a team approach in reviewing progress to date. And he used it in assessing alternatives for the future. Differences in view existed from time to time. We saw this first-hand in the decision sessions we observed. The decision to terminate the search was a good illustration.

But each organization had a representative present. Everyone was given the opportunity to express their views. When opposing arguments were advanced, the coordinator would turn to others present. "What is your view? Everyone had their say. Then — but only then — he indicated his decision.

But he also specified the reasons for it. At times he underlined



PAUL WILLIAMS OF MOUNTAIN RESCUE ASSOCIATION.



ESAR MEMBERS DISCUSSING MT. SI SEARCH.

ON LOADING SEARCHERS ABOARD ARMY HELICOPTER.



ADVERTISEMENT

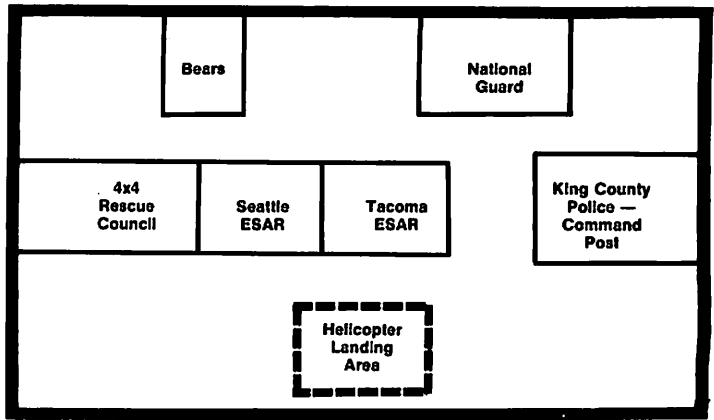
WHO IS THE SAR SNIVELER ??????

SNIVEL: "To fret or complain in a whining, tearful manner.... often false display...."

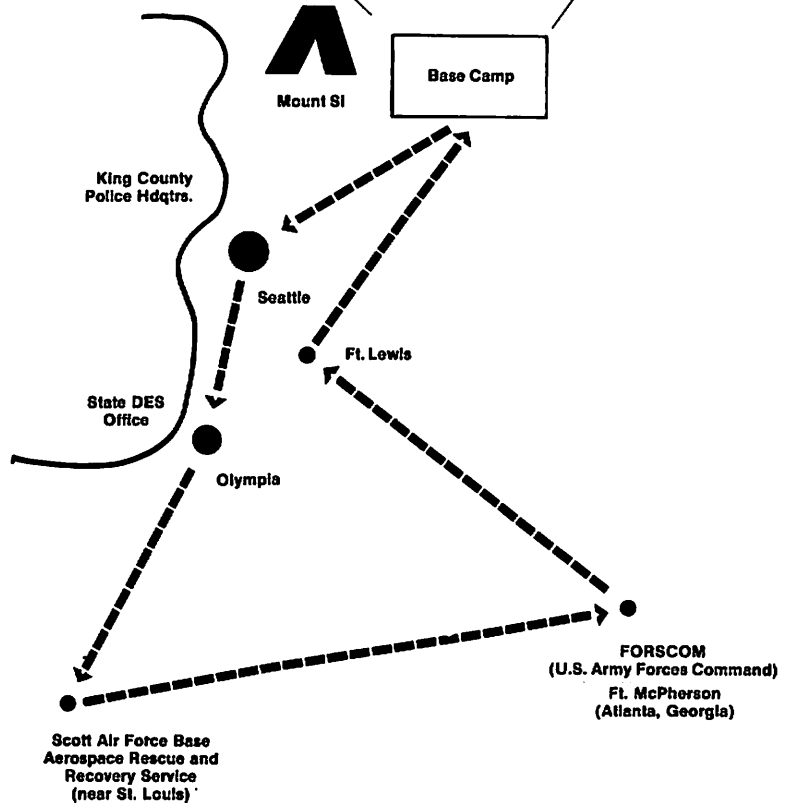
An informal committee to recognize snivelers is currently receiving an avalanche of nominations... and folks we're not even actively soliciting. Just sit back and listen. It is all too easy to sit on the side-lines and snivel... but the real challenge (and the way to make things better) is to jump in and be **constructive and productive**. The facts continue to speak for themselves: Most folks are very content (apparently) to just snivel. **So all you snivelers take note...** We do hear you, and... future recognitions are forthcoming. This committee is not attempting to prove the KELLEY/STOFFEL theory on social implications of sniveling, though their thoughts on this subject alone may qualify them for a future recognition.

(Paid advertisement by the Committee to Stamp-Out Sniveling, Wade/LaValla Chairmen)

ADVERTISEMENT



As described in the text, other organizations were present at base camp during the four-day mission.



The Web of Communication: Mount SI
SAR Mission — Washington State, May 21, 1978

THE GREATEST LOST WILDERNESS THRILL IS NOW YOURS - MANTRACKING!

MANTRACKING is the first book ever to teach you the ancient skill of tracking and signcutting. Famous frontiersmen of yesteryear dazzled the city slicker with this lost search tool, and now you can too! MANTRACKING carefully takes you through the unique Step-by-Step Method to trailing perfection and the greatest sense of satisfaction you've enjoyed in years. 120 pages, 35 illustrations, softbound.

Order now and save \$1.00 off the regular price of \$8.99
Mail to: SEARCH & RESCUE MAGAZINE
Box 153A, Montrose, CA 91023

Send me _____ Name _____
Copies of Mantracking at the _____ Street _____
Special introductory Price of \$7.99 each. _____ City _____
_____ State _____ Zip _____

Check Enclosed Card No. _____ Exp. Date: / _____
 Master Charge
 BankAmericard
(Call residents add 6% sales tax)

DEALER INQUIRIES WELCOMED

elements of uncertainty. Yet, despite uncertainty and conflicting views, a decision had to be made. Some might not have agreed, but they knew where he was coming from.

Reasonable people may disagree. But multi-unit coordination requires that all participants be given the opportunity to advance their case. They must believe that others are listening. Once alternative options are presented, however, a decision must be made. The articulation of the rationale, including fair specification of uncertainties and differences in view, will help all present to understand the basis for the decision. They then can interpret it to their members more effectively.

This style increases the likelihood that there will be continued respect for this multi-unit leader. And, too, this insures the desirability of continued participation in the network.

State DES Office

The capability of this emergent multi-unit response network was enhanced by actions taken by the State DES Office. No personnel from this agency were physically present at base camp. Yet, the office was a key component of the network.

The illustrations above were but a few of the numerous actions taken during the four-day period. More importantly, this office has played a key role for several years in seeking legislative changes to reinforce the efforts of local SAR groups.

What about its counterpart in your state? Do you have a full-time SAR coordinator in your State Emergency Preparedness office? Does your state provide insurance coverage for SAR volunteers? What training programs and assistance does it provide?

The list could go on, but the point remains with you. Effective multiorganizational coordination doesn't just happen. When networks are comprised of units ranging from local volunteers and

county agencies to components of state and federal bureaucracies, there is an acute need for continuing work behind the scenes. And someone has to do it.

Commitment to the Victim

As noted above, multiorganizational coordination efforts have been documented among health service, criminal justice and welfare systems. Unlike many of these, however, this four-day-long behavioral system was focused on a very specific goal. Everyone knew it. But of even greater importance — all participants were committed to it.

We have had the opportunity to interview organizational members in a wide variety of agencies over the years of our collective experience. With this as a context, we were impressed with the intensity of the commitment by those participating in this EMON. The victim had priority. This priority was mutually reinforced.

This collective sense of purpose generated a willingness to be less concerned with the autonomy of the member organization. That doesn't mean that these people came together and dropped their separate organizational identities. No, indeed. If anything, these, too, were reinforced. But there was an overriding concern with locating the victim. This may seem trite to seasoned SAR leaders — especially those who are volunteers. But having completed this case analysis and the experience of conducting many others, we stress the importance of this factor. It is not a widespread feature of American society at present.

How Do You Measure Up?

In conclusion, we would emphasize that we do *not* want our comments to be interpreted as implying that the Washington State model is the best way of doing things. Who knows — it may very well be that among the many SAR missions of this scope which occurred last year, we just happened to pick one which was well-coordinated. Based on our interview data, we seriously doubt that, however.

But the fact remains. Here was an emergent multiorganizational network which exhibited a high degree of coordination. We have offered some observations regarding factors that generated this. It remains for you to decide which of these elements, if any, are applicable to your organization and locale. The best we can do is to suggest that we have concluded that this EMON was well-coordinated — more so than others we have encountered in our reading and field work. It can be done!

MRA MEMBERS PREPARING FOR DEPLOYMENT.



*Among those which many have found helpful are: *Search and Rescue and Emergency Response: Training Manual, A Model for Joint Operations and Project Missions*, San Diego, California: National Association for Search and Rescue, 1978; Dennis Kelley, *Mountain Search for the Lost Victim*, Montrose, California: Dennis Kelley, Publisher, 1973; Paul Green and Rick LaValla (editors), *SAR Management Instructor's Guide*, used in NASAR's SAR Management Courses.

**Rick LaValla, past President of NASAR, has been supportive of this project; we wish to acknowledge our appreciation of his many forms of continuing assistance. Rick is one of 16 Advisory Committee members who meet regularly with us. Their critiques and liaison support has been invaluable.

***Detailed descriptions of less-coordinated emergent multiorganizational settings are contained in *Disaster in Aisle 13* (T. E. Drabek), Columbus: College of Administrative Sciences, Ohio State University, 1968 and *Communities in Disaster* (A. H. Barton), Garden City, New York: Doubleday, 1969.

¹Robert Mattson's (National Headquarters - Civil Air Patrol) NASAR workshops — "Creating Interorganizational Coordination, Search and Rescue Mission Application" — have drawn heavily on these materials. They were prepared by Charles L. Mulford, Richard D. Warren, Gerald E. Klomlan, and Judy M. Winkelplick of the Department of Sociology, Iowa State University, Ames, Iowa, under a contract with the Defense Civil Preparedness Agency.

²Most influential of all his writings was *Organizations in Action*, New York: McGraw-Hill, 1967 — still cited extensively in the most recently published texts in management theory and organizational analysis. ●

1979

National Association Search and Rescue Convention

The Baton Rouge Hilton
Baton Rouge, Louisiana



September 13-16, 1979

Program Topics:

- The Role of the Wildlife Agency in SAR
- Rural EMS
- The Acquisition of Military Surplus
- Underwater SAR
- State Planning and Coordination
- Cave SAR
- Media Relations
- And Much More . . .

Demonstrations:

- High Rise Rescue
- Water Disaster Rescue
- Dog Team and Tracking Demonstration
- Aircraft Fire Burn

Exhibits

REGISTRATION FEE

Member \$65.00
 Non-Member \$85.00

- Send me information on the 1979 Convention
- Sign me up as a new member of NASAR, \$19.50 for one year
- Payment enclosed
- Bill me
- Register me for the Baton Rouge NASAR Convention

Return to:

NASAR '79
NSU
Natchitoches, LA 71457

Enclosed is my check for _____

REGISTRATION FEE
 Member \$65.00
 Non-Member \$85.00

Name _____

Address _____

After September 1 each category will be \$10 higher.

J. E. (Jim) MAHER
SAR Coordinator
State of Mississippi

There has been a continuing discussion in recent months concerning the relationship between the States and NASAR. To shed some light on this subject two very important questions must be answered. First, what do the States want of NASAR and second, what should the States provide NASAR? Neither are easy to answer, it would be difficult to obtain a consensus in any group.

What do the States want of NASAR?

NASAR must provide a forum for the exchange of ideas and information, not only the tried and practical but also those from the blue sky, the stuff dreams are made of. Wherever and whatever the opportunity, it is the interaction and interrelationship of individuals from the various disciplines within the search and rescue community that improve the over-all knowledge and technical proficiency of the whole.

It Must Not Bite Off More Than It Can Chew

NASAR must set and attempt to achieve realistic goals. A set of plans and programs (long, mid and short range) must be developed based on the purposes and objectives set forth in the constitution. The achievement of plans and programs must be within the financial means of the Association. It must not bite off more than it can chew.

The closed corporation must be opened. When viewed through the eyes of an outsider, NASAR has the appearance of a very provincial body with nationwide ideas. True, all the current officers are from "eastern" states, but one still gets the impression that representatives from the east and south are unwanted interlopers. The provincialism must be replaced by nationalism if NASAR is to become a truly "national" association.

Search and Rescue is Only a Small Segment of a Varied Whole

The States must receive understanding from NASAR as a body. An understanding that to agencies of State Government: Aviation, State Police, Transportation, Civil Defense, Emergency Services, Fish and Wildlife, whatever: search and rescue is only a small segment of a varied whole. In most States, the Agency that deals with SAR is also involved in planning and response for nuclear attack, nuclear power plants, earthquakes, floods, tornados, hurricanes, winter storms, energy, terrorism and whatever else is brought to it through the mail or by telephone each day. SAR is only a small part of the over-all scope of responsibilities and functions.

What should the States provide NASAR?

The States must provide the primary leadership for NASAR. If the Association is to retain its viability, credibility, and achieve its purposes and objectives, there must be strong leadership and it must come from the States who have the responsibility to protect and preserve life and property. The leadership provided must be concerted, committed to and involved in the affairs of the Association, and not a "let Jack do it" arrangement. If the leadership is not provided, then the purposes of which NASAR was formed will not be achieved.

Must Become Actors, Not Reactors

This is a singular point of view by a short time observer and state representative to NASAR. The challenge is there for all to accept or reject. We, the State Representatives, must become "actors" and not "reactors" if we are to exert the leadership expected of us. ●

Bill Wade, 2nd VP

For the past 4-5 years, I have heard periodic rumblings that NASAR does little or nothing for its Individual Members. Interestingly though, I have yet to hear anyone say specifically - what it is NASAR can and should do for the Individual Member that it isn't doing.


As Individual Member Caucus Chairman and NASAR Second Vice President, this anomaly concerns me. I'd like to make a concerted effort to resolve it.

It seems to me that NASAR *has* benefitted Individual Members. Some benefits are tangible, to those who have taken advantage of them, and others more indirect or intangible:

- We feel that in the last 4 years, NASAR's efforts have contributed to the improvement in the reduction of average response time on scene for both land operations and aircraft missions.
- We have created additional support of volunteer expertise by state and federal agencies — i.e. military helicopter support on missions; state insurance for volunteers, transportation to and *from* search missions for volunteers and much more.
- NASAR continues to work for a communications system to link together rescue, law enforcement, military and coordinating resources during emergency operations.
- NASAR continues its safety education program for our citizens so as to decrease the dependence of our "light switch" society on outside resources for rescue. After all, the first person on-scene is often the key to life or death. That person could be someone in our own family, some day.
- And most importantly, NASAR is the only humanitarian association organized specifically to exchange information and further the coordination of emergency response between state, federal, local and private rescue units.
- NASAR continues to support, develop and provide increased opportunities for both volunteer and agency education in Emergency Response Management and Techniques, (i.e. support of the National SAR School., NASAR's "Managing the Search Function" course and state level training.)

But there's still room for much more to be done. And if Individual Members will tell me what they think NASAR can and should do — *Explicitly*, not just in vague, general terms — for them or for anyone, I'll do my best to see that it is considered by the Board. ●

RICO



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

ANOTHER FORM??!!!

WHO NEEDS IT??!!!

by John H. Gunson
NASAR Data Collection Committee

The people in Search and Rescue have always been interested in developing new tools and techniques which might help them do their jobs better toward the common goal of saving lives. This has prompted research in everything from hypothermia to belay plates in an effort to raise the "State of the Art" in SAR. As an integral part of this effort, a number of people have been doing research in areas which require gathering and comparing a cross-section of Search and Rescue data. The potential value of this research has been graphically illustrated in the works of such individuals as Dennis Kelley, Jon Wartes and Bill Syrotuk. Their work shows beautifully what can be done by gathering the right information, but a common problem keeps hindering the effort: How to collect the information on a large enough scale to make the results representative for the entire SAR community. In addition to this is the problem of being able to compare the data once you have collected it.

Most of the teams involved in the various aspects of Search and Rescue have recognized the desirability of keeping some sort of record of their mission involvement. With few exceptions, however, this record is intended for the use of the specific team and therefore concentrates on gathering items of local interest and keeping a historical narrative of the mission for future reference or posterity. For this reason each team has its own report form and consequently no two forms are alike. If we then consider the fact that each person seems to fill out the form differently, it makes it almost impossible to gather and compare the information collected on a regional or national scale.

In 1975 NASAR asked Col. Bob Mattson to chair a committee for the specific purpose of designing a SAR Data Collection System which would serve the needs of various organizations from local teams to researchers. At first glance the task seemed relatively simple: If we could get a large, broad based sampling of the mission report forms that groups were currently using, we could select the 20-30 items of information most commonly requested and consolidate those into one form that could be used by all groups. The word went out, the sample forms came in and the problems began.

Much to our surprise there was no consensus. Each form seemed completely different, not only in the obvious areas such as appearance and format but more importantly in the specific areas of information requested. In fact the only piece of information common to all of the forms was the date, and even then it was not clear whether they wanted the date of the mission or the date the form was being filled out. Obviously we needed to approach it from a different angle.

A series of conversations with people in the field of data collection all echoed the same dictums:

- Determine what you are going to do and each item of information *before* you decide to collect it.
- You can't properly design the collection system (the form) until you know what questions you want answered.
- In short, "What is the purpose of the data?"

With these principles in mind, we decided to make up a questionnaire designed to ask knowledgeable SAR people which items of information they felt would be the most useful to the over-all Search and Rescue effort. The four page questionnaire was distributed in the fall of 1976 to over 100 persons which finally resulted in 66 responses which were tabulated to finally yield the consensus of the participants which were hopefully representative of the SAR community.

With all these requirements in mind, we started listing the specific questions to ask and attempted to finally design the actual form. The first draft was prepared early in 1977 and sent out to various individuals for testing and comments. The criticisms came back and we made many changes in the form to correct the unforeseen problems. This process continued until now, after five separate drafts and three and a half years of research, design and revisions, we have arrived at the form presented here. We've learned enough to know that there are probably still "bugs" in it, but we feel that the best way to find them is to distribute and use the form on a large scale and to start getting some results from the data.

At the spring business meeting the NASAR Board of Directors officially endorsed the form and asked for SAR organizations to voluntarily adopt it, use it, and send in a copy of each completed report. If your SAR organization would like to participate, please write to NASAR, Box 2123, La Jolla, Ca. 92038. We are asking for a contribution of \$1.00 for each packet of 100 forms to help defray the cost of printing. (If you want to print it yourself from the one shown here that's fine too.)

We promise you that if you and the members of your team will faithfully fill out and send in the completed forms (or a copy) we will faithfully compile and publish the data in *Search and Rescue Magazine* on a regular basis. In addition, the completed forms will be available for special research by all interested organizations such as the American Alpine Club, preventative Search and Rescue, subject behavior research, etc.

We need your help, we need your suggestions and most of all we need your data. We all will benefit from the effort and best of all it may enable us to do a better job in helping the ultimate user: the Victim. ●

California Mountain Company

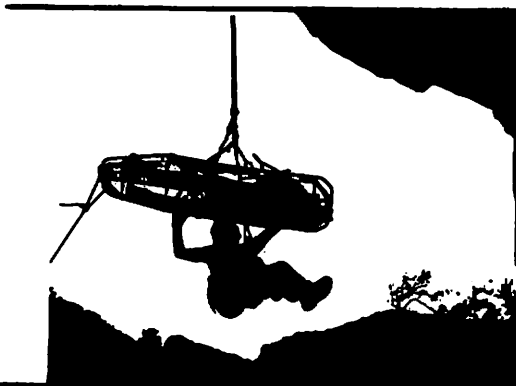
P. O. Box 6602 Santa Barbara CA 93111 (805) 964-2462

FORREST MSR GIBBS GOOKINAID SMC RUSS ANDERSON DOLT TEKNA-LITE SHERPA OPTIMUS

Owner-operators are active members of a MRA search and rescue unit, and of HASAR. California Mountain Company was founded to provide quality equipment backed with operational and technical experience. We specialize in equipment for search and rescue. We use what we sell. Please don't hesitate to contact us for your equipment needs or questions.

ASK FOR OUR FREE CATALOG

Equipment for Mountaineering and Mountain Rescue





MISSION REPORT

MISSION IDENTIFICATION

UNIT NAME _____ UNIT ZIP CODE _____

CALLER TO HELP Month _____ Day _____ Year _____ 24 Hr. clock Time _____ By local authority/Sheriff By other SAR team By subject's companions By state SAR organization By subject's family

MISSION NUMBER(s) Local _____ State _____ Other _____ MISSION COORDINATOR _____

INCIDENT

SUBJECT WAS LOST/INJURED Month _____ Day _____ Year _____ 24 Hr. clock Time _____ NUMBER LOST/NEEDING HELP _____ NUMBER IN PARTY _____ (if any) GROUP AFFILIATION _____

LOCATION INJURED OR LAST SEEN POINT (if lost) Lat. _____ / _____ / _____ "N. Long. _____ / _____ / _____ "W. OTHER NAME/DESCRIPTION _____

(if lost) DESTINATION Lat. _____ / _____ / _____ "N. Long. _____ / _____ / _____ "W. OTHER NAME/DESCRIPTION _____

(if lost) INTENDED ROUTE _____

ACTIVITY	SITUATION	(if lost) LAST KNOWN POSITION	DESCRIPTION (optional) OF INCIDENT
<input type="checkbox"/> Climber	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	
<input type="checkbox"/> Hiker	<input type="checkbox"/> Lost	<input type="checkbox"/> Last seen point	
<input type="checkbox"/> Hunter	<input type="checkbox"/> Stranded	<input type="checkbox"/> Abandoned car	
<input type="checkbox"/> Skier	<input type="checkbox"/> Injury	<input type="checkbox"/> Building	
<input type="checkbox"/> Snowmobile	<input type="checkbox"/> Illness	<input type="checkbox"/> Known route	
<input type="checkbox"/> Vehicle	<input type="checkbox"/> Runaway	<input type="checkbox"/> Known destination	
<input type="checkbox"/> Aircraft	<input type="checkbox"/> Overdue	<input type="checkbox"/> Confirmed clue	
<input type="checkbox"/> Boat	<input type="checkbox"/> False alarm	<input type="checkbox"/> None	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

(additional comments attached)

SUBJECT INFORMATION

SUBJECT(S) NAME	AGE	SEX	ADDRESS	TOWN	STATE
A _____					
B _____					
C _____					

(for additional subjects attach additional forms)

PRIOR PHYSICAL CONDITION	PRIOR MENTAL CONDITION	EXPERIENCE AT ACTIVITY	EQUIPMENT FOR ACTIVITY	CLOTHING FOR ENVIRONMENT	PRIOR SURVIVAL TRAINING
A B C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Unknown <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Good <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Fair <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Poor <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sick <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A B C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Unknown <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Normal <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Upset <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Angry <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Retarded <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A B C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Unknown <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Much <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Some <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Little <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> None <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A B C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Unknown <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Adequate <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Questionable <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Inadequate <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Lost it <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A B C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Unknown <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Appropriate <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Questionable <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Inappropriate <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Lost it <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A B C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Unknown <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Military course <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Civilian course <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Books/reading <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> None <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

RESPONSE

TYPE OF RESPONSE	RESCUE/RECOVERY TECHNIQUES USED	(if lost) SEARCH TECHNIQUES USED	DESCRIPTION (optional) OF RESPONSE
<input type="checkbox"/> Standby only <input type="checkbox"/> Callout only <input type="checkbox"/> Land search <input type="checkbox"/> Water search <input type="checkbox"/> Air search <input type="checkbox"/> Rescue <input type="checkbox"/> Body recovery <input type="checkbox"/>	<input type="checkbox"/> Assist/own power <input type="checkbox"/> Carry-out by foot <input type="checkbox"/> Rock/scree evac. <input type="checkbox"/> Evac. by animal <input type="checkbox"/> Watercraft evac. <input type="checkbox"/> Evac. by vehicle <input type="checkbox"/> Aircraft evac.	<input type="checkbox"/> Confinement <input type="checkbox"/> Attraction <input type="checkbox"/> Hasty search <input type="checkbox"/> Visual tracking <input type="checkbox"/> Search dogs <input type="checkbox"/> Line search <input type="checkbox"/> Air search	

(additional comments attached)

CONDITIONS

GENERAL CONDITIONS ENCOUNTERED BY SUBJECT

<input type="checkbox"/> Clear	Elevation	<input type="checkbox"/> 0 <input type="checkbox"/> 2000 <input type="checkbox"/> 4000 <input type="checkbox"/> 6000 <input type="checkbox"/> 8000 <input type="checkbox"/> 10,000 <input type="checkbox"/> 12,000 <input type="checkbox"/> 14,000 _____ ft.
<input type="checkbox"/> P'tly. cloudy	Temp.	<input type="checkbox"/> _____ <input type="checkbox"/> -30 <input type="checkbox"/> -10 <input type="checkbox"/> 0 <input type="checkbox"/> 10 <input type="checkbox"/> 30 <input type="checkbox"/> 50 <input type="checkbox"/> 70 <input type="checkbox"/> 90 <input type="checkbox"/> 110 _____ °F
<input type="checkbox"/> Overcast	Wind	<input type="checkbox"/> 0 <input type="checkbox"/> 10 <input type="checkbox"/> 20 <input type="checkbox"/> 30 <input type="checkbox"/> 40 <input type="checkbox"/> 50 <input type="checkbox"/> 60 <input type="checkbox"/> 70 <input type="checkbox"/> 80 <input type="checkbox"/> 90 <input type="checkbox"/> 100 _____ mph
<input type="checkbox"/> Foggy	Raining	<input type="checkbox"/> 0 <input type="checkbox"/> 1/10 <input type="checkbox"/> 1/4 <input type="checkbox"/> 1/2 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 _____ in.
<input type="checkbox"/> Stormy	Snowing	<input type="checkbox"/> 0 <input type="checkbox"/> 1/2 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 8 <input type="checkbox"/> 10 <input type="checkbox"/> 12 _____ ft.
<input type="checkbox"/>	Visibility	<input type="checkbox"/> 0 <input type="checkbox"/> 100ft. <input type="checkbox"/> 1/4 <input type="checkbox"/> 1/2 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 10 <input type="checkbox"/> 20 _____ mi.

GENERAL TERRAIN TRAVELED BY SUBJECT

TERRAIN CHARACTERISTICS	VEGETATION
<input type="checkbox"/> Flat	<input type="checkbox"/> Rock <input type="checkbox"/> Unknown
<input type="checkbox"/> Rolling	<input type="checkbox"/> Snow <input type="checkbox"/> Easy
<input type="checkbox"/> Hilly	<input type="checkbox"/> Wooded <input type="checkbox"/> Moderate
<input type="checkbox"/> Rugged	<input type="checkbox"/> Marshy <input type="checkbox"/> Difficult
<input type="checkbox"/> Mountains	<input type="checkbox"/> Desert <input type="checkbox"/> Technical
<input type="checkbox"/>	<input type="checkbox"/>
	BRUSH TIMBER
	<input type="checkbox"/> None <input type="checkbox"/>
	<input type="checkbox"/> Some <input type="checkbox"/>
	<input type="checkbox"/> Medium <input type="checkbox"/>
	<input type="checkbox"/> Dense <input type="checkbox"/>
	<input type="checkbox"/> Mixed <input type="checkbox"/>

RESULTS

SUBJECT WAS FOUND/RESCUED Month ___ Day ___ Year ___ 24 Hr. clock Time ___ By SAR effort By him/herself Not found/rescued By bystanders Never needed help

LOCATION FOUND/RESCUED Lat. ___ / ___ / ___ "N. Long. ___ / ___ / ___ "W. OTHER NAME/ DESCRIPTION _____

AS A RESULT OF SAR EFFORT, TOTAL NUMBER OF PERSONS FOUND _____ RESCUED _____ LIVES REALLY SAVED _____

REASON MISSION TERMINATED	(if lost) FOUND IN	(if found by SAR effort) CLUES FOUND BY	SUBJECT FOUND BY	DESCRIPTION (optional) OF FIND/RESCUE
<input type="checkbox"/> Successful	<input type="checkbox"/> Primary search area	<input type="checkbox"/> Interrogation	<input type="checkbox"/>	_____
<input type="checkbox"/> Lack manpower	<input type="checkbox"/> Secondary search area	<input type="checkbox"/> Confinement	<input type="checkbox"/>	_____
<input type="checkbox"/> Lack equipment	<input type="checkbox"/> Area previously searched	<input type="checkbox"/> Attraction	<input type="checkbox"/>	_____
<input type="checkbox"/> Lack support	<input type="checkbox"/> Out of search area	<input type="checkbox"/> Hasty search	<input type="checkbox"/>	_____
<input type="checkbox"/> Lack clues	<input type="checkbox"/> Home, bar motel, etc.	<input type="checkbox"/> Visual tracking	<input type="checkbox"/>	_____
<input type="checkbox"/> Hazardous terrain	<input type="checkbox"/>	<input type="checkbox"/> Search dogs	<input type="checkbox"/>	_____
<input type="checkbox"/> Severe weather	<input type="checkbox"/>	<input type="checkbox"/> Line search	<input type="checkbox"/>	_____
<input type="checkbox"/> Too large an area	<input type="checkbox"/>	<input type="checkbox"/> Helicopter	<input type="checkbox"/>	_____
<input type="checkbox"/> Authority decision	<input type="checkbox"/>	<input type="checkbox"/> Fixed wing	<input type="checkbox"/>	_____
<input type="checkbox"/> Family decision	<input type="checkbox"/>	<input type="checkbox"/> Subject's signal	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

(additional comments attached)

MEDICAL INFORMATION

EXTENT OF INJURIES	MEDICAL/ ENVIRONMENTAL	TRAUMATIC INJURIES	DESCRIPTION OF (optional) MEDICAL CARE
A B C	A B C	A B C	
<input type="checkbox"/> None/Uninjured	<input type="checkbox"/> Internal illness	<input type="checkbox"/> Soft tissue wound	_____
<input type="checkbox"/> Slight/First aid	<input type="checkbox"/> Heart attack	<input type="checkbox"/> Internal organs	_____
<input type="checkbox"/> Moderate/Doctors care	<input type="checkbox"/> Breathing prob.	<input type="checkbox"/> Skeletal system	_____
<input type="checkbox"/> Severe/Hospitalized	<input type="checkbox"/> Altitude sick	<input type="checkbox"/> Respiratory "	_____
<input type="checkbox"/> Fatal	<input type="checkbox"/> Cold exposure	<input type="checkbox"/> Circulatory "	_____
	<input type="checkbox"/> Heat exposure	<input type="checkbox"/> Nervous system	_____
	<input type="checkbox"/> Poisons/drugs	<input type="checkbox"/> Burns	_____
	<input type="checkbox"/> Shock	<input type="checkbox"/> Drowning	_____
	<input type="checkbox"/>	<input type="checkbox"/>	_____

(additional comments attached)

SUBJECT BEHAVIOR

CAUSE OF INCIDENT	(if injury) REASON(s)	(if lost) REASON(s)	(if lost) FOLLOWED	(if lost) DETECTABILITY	ACTION(s) TAKEN
<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	YES <input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown
<input type="checkbox"/> Human error	<input type="checkbox"/> Haste	<input type="checkbox"/> Poor supervision	<input type="checkbox"/> Path/trail/road	<input type="checkbox"/> Conscious	<input type="checkbox"/> Sought shelter
<input type="checkbox"/> Caused by Victim	<input type="checkbox"/> Exceed ability	<input type="checkbox"/> Accidental separation	<input type="checkbox"/> Natural drainage	<input type="checkbox"/> Cooperative	<input type="checkbox"/> Conserved energy
<input type="checkbox"/> Other person caused	<input type="checkbox"/> Fatigue	<input type="checkbox"/> Intentional separation	<input type="checkbox"/> Natural clearings	<input type="checkbox"/> Verbal response	<input type="checkbox"/> Built fire
<input type="checkbox"/> Caused by Nature	<input type="checkbox"/> Fall or slip	<input type="checkbox"/> Took short cut	<input type="checkbox"/> Toward landmark	<input type="checkbox"/> Mobile	<input type="checkbox"/> Found food
<input type="checkbox"/> Weather	<input type="checkbox"/> Inadequate equip.	<input type="checkbox"/> Poor map/no map	<input type="checkbox"/> Toward civilization	<input type="checkbox"/> Visual sighting	<input type="checkbox"/> Signaled for help
<input type="checkbox"/> Darkness	<input type="checkbox"/> Misuse of equip.	<input type="checkbox"/> Disoriented	<input type="checkbox"/> Over major obstacle	<input type="checkbox"/> Prone position	<input type="checkbox"/> No self help
<input type="checkbox"/> Falling object	<input type="checkbox"/> Anchor failure	<input type="checkbox"/> Poor trail/markings	<input type="checkbox"/> Wandered about	<input type="checkbox"/> Dark clothing	<input type="checkbox"/> Discard equipment
<input type="checkbox"/> Equipment failure	<input type="checkbox"/> Belay failure	<input type="checkbox"/> Misjudge time/distance	<input type="checkbox"/> Went cross country	<input type="checkbox"/> Hidden from view	<input type="checkbox"/> Panicked
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(if lost) WHAT WAS THE "AIR" DISTANCE FROM THE LAST KNOWN POSITION TO WHERE THE SUBJECT WAS FOUND? _____ Mi.

FROM THE LAST KNOWN POSITION, WAS THE SUBJECT FOUND GENERALLY Upwards Downwards Same elevation HOW FAR? _____ Ft. elevation

HOW LONG WAS THE SUBJECT ACTUALLY MOBILE AND WALKING? _____ Hours Unknown Day travel only Night travel only Both day and night travel

RESOURCES USED

MISSION WAS CLOSED ON Month ___ Day ___ Year ___ 24 Hr. clock Time _____		NOTE: Manhours and Equipment used should include time for MOBILIZATION, ENROUTE, MISSION & RETURN HOME			
No.	EQUIPMENT INVOLVED	Name	OTHER UNITS INVOLVED	No. of Persons	TOTAL PERSONNEL/MANHOURS INVOLVED
_____	Helicopters _____	_____	_____	_____	Total number of YOUR personnel involved _____
_____	Fixed Wing _____	_____	_____	_____	Total manhours expended by YOUR unit _____
_____	Ambulances _____	_____	_____	_____	Total number of ALL personnel involved _____
_____	2WD Vehicle _____	_____	_____	_____	Total manhours expended by ALL personnel _____
_____	4WD Vehicle _____	_____	_____	_____	COMMENTS/ (optional)
_____	Power Boat _____	_____	_____	_____	PROBLEMS _____
_____	Horses _____	_____	_____	_____	_____
_____	Dogs _____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

area code

REPORT PREPARED BY _____ PHONE (_____) _____ Additional forms may be ordered from NASAR, Box 2123, La Jolla, Ca. 92038

LETTERS TO THE EDITOR

Dear Dennis,

I don't think that I replied to your last letter, as I was away on the above trip. Looking for Inca treasure is more difficult than missing persons!

As yet, I'm not sure how much space I'll have in the new rescue book for a further US contribution, but I'll let you know as soon as I get this established, many thanks for your offer.

Later this year I will be bringing the International MR Handbook up to date and any suggestions or advice which you can give will be gratefully received. There will of course be an index in the new edition and reference to your work re. Inland Ground Search. As you know my publishers promise to allow a new edition of the book some time ago, but due to demand they decided to just re-print, which set things back somewhat.

We are having a busy winter here with rescues and it looks as if the snow will last well into the summer.

Hamish MacInnes
Scotland

Dear Mr. Kelley:

As you know, the Interagency Committee on Search and Rescue chartered an ad hoc working group to develop an emergency response communications program. The group was given further guidance by the then Office of Telecommunications Policy of the Executive Office of the President, which approved the group's consolidation of all federal, state, and local emergency communications requirements throughout the spectrum of severity; i.e., search and rescue, emergency medical, and disaster operations.

To complete this task, the group has been working with your staff and in some cases with you personally, to establish baseline requirements, an economical technical solution and an efficient management scenario.

I am therefore forwarding their draft report to you personally for comment. Please ensure that your state or agency's peculiar requirements have been considered. Should you have requirements not covered, or if your staff has been unable to attend our regional meetings, please provide your baseline requirements at the earliest possible date. In any event, I would appreciate having all the data by 23 April so that I may begin the economic and technical analysis normally required by the Office of Management and Budget.

I stand ready to assist you in any way as I see this program as a great stride forward in our mutual humanitarian mission.

N. C. Venzke
Rear Admiral, U.S. Coast Guard
Chairman, Interagency Committee
on Search and Rescue

Editor:

We are currently preparing the subject book for publication in pilot form sometime this year. It will be an international listing of clubs, schools teaching mountaineering techniques, rescue organizations, and mountaineering equipment dealers.

We have almost no information on rescue organizations in Asia, Europe or South America, other than the assistance provided by clubs or the military. Mr. Dennis Kelley, the publisher of *Search and Rescue Magazine* suggested that his readers might be able to provide us with some information regarding SAR organizations in these continents. If such information is available it should be included in this publication in order to benefit as many mountaineers as possible. We would be most appreciative for any assistance provided, and would acknowledge this help.

George Pokorny
c/o Search & Rescue Magazine
P.O. Box 153,
Montrose, CA 91020

Editor:

I received the book, *MANTRACKING*.

I have read the first couple chapters so far. I sort of got a kick out of the part where the two Border Patrolmen had been able to track so many wetbacks: I could show them about 3 million that they missed, were they to care to drop by this way! Those, of course, are the 3 million that I know personally -- their friends, that's another story.

A topic which has always been of interest to me is eluding someone tracking me, especially with dogs. I have some friends in law enforcement out west, and have gotten some tips, but nothing definitive sounding. Some I've written to who are in a position to know have declined to offer suggestions, perhaps because they don't know just what sort of hombre they are dealing with.

Frank Horn

Editor: I will try to publish something on this aspect of mantracking.

Dear Dennis:

Please consider this to be a letter to the editor:

On Page #2 of the Winter, 1978 issue of *Search & Rescue Magazine* you indicated that Paul Petzoldt is a "famous first ascender of the Teton's Grand."

Well . . . Paul may be famous. . . .

But. . . .

He is **not** a famous "first ascender" of the Grand.

No way!!!!

I'm afraid that you got a bit carried away by Paul's self-interest publicity.

Just thought that you might want to keep the record straight. . . . advise your readers of the truth in the next issue of your Rag

Many Thanks. . . .

Frank Ashley

Editor: I have written the Grand Teton Natl. Park Historical Society for help.



Makes high quality rope

7/16" - 11.1mm diameter, braided sheath, nylon rope, with high abrasion resistance and low stretch characteristics, designed especially for rappelling, ascending, and rescue hauling systems.

- 5,000 lbs. breaking strength on a bowline knot.
- 2% elongation at 200 lbs. load.
- Custom lengths available.
- PMI also offers:

1/2" - 12.7mm diameter nylon rope for rescue hauling systems.

5/16" - 7.9mm diameter nylon rope for slings, handlines, etc.

Brake bar racks, brake bars, rope packs, rescue pulleys, rope washers.

Write for Free Catalog:
PIGEON MOUNTAIN INDUSTRIES, INC.

Dept. R

P. O. Box 803, Lafayette, Georgia 30728, (404) 638-2181

HELLO, IS ANYONE REALLY OUT THERE? (DOES ANYONE REALLY CARE?)

Rick LaValla, WA State SAR Coordinator

Well, after several years of absence, I'm back with the "Who's Doing Things, With Whom, and With What" column. I have perceived a great demand to revive this information feature, especially if you can believe in the NASAR theorem which states, in part, "Silence Implies Consent, Demand"

The purpose of this article, and hopefully there will be future articles, will be to keep you current on what is new (what is it, where to get it, how much?) and what is happening.

Therein hangs the tail: In order for this to be a success, I will need continued input and comment. . . . *so keep the cards and letters coming.*

Last summer, I published a 60 page "Resource Guide for SAR Training Materials," which was sent free to all NASAR members who renewed memberships last fall, and is available to all non-members for \$5.00 from the Emergency Response Institute, 9035 Golden Given Road, Tacoma, WA 98445. This column will assist you in keeping your copy of this publication current and all information received will be incorporated in the future revision.

New Publications:

HIP POCKET SURVIVAL HANDBOOK, American Outdoor Safety League, 13256 Northrup Way, Suite 8, Bellevue, Wash. 98005. 45 pages, 4x5 inches, price \$1.80 (ask for quantity discounts). Besides being a comprehensive guide and checklist for emergencies, the cover is a fire-starter, and the center-fold is a signal mirror. . . . plus more.

MEDICAL HANDBOOK FOR PILOTS, DOT and FAA, U.S. Gov't Printing Office, Supt. of Documents, Wash. D.C. 20402. Reprint 1978, 74 P. ill., Reference Number TD 4:8:M 46/3 S/N 050-007-00254-8.

This handbook helps pilots to have an awareness of biological situations that may adversely affect their ability to fly.

DISASTER-RELATED PUBLICATIONS OF THE U.S. GOVERNMENT, MP-78, Sept. 1978, Information Services Directorate, Defense Civil Preparedness Agency, Washington, D.C. 20301. Free. 57 pages. Also request the Defense Civil Preparedness Agency's Publications Catalog (MP-20).

VENOMOUS ANTHROPOD HANDBOOK, by Terry L. Biery,

USAF School of Aerospace Medicine, Brooks AFB, Texas 78235. Available from U.S. Gov't Printing Office, Supt. of Documents, Wash. D.C. 20402. Price \$1.40.

Provides medical personnel with a quick reference on the problems caused by venomous arthropods found in the U.S. Includes the latest first aid information available.

SEARCH AND RESCUE MANAGEMENT COURSE PACKAGE. Material is generally only available by taking a NASAR endorsed SAR Management Course (but there are exceptions). Write to: NASAR Training Committee, P.O. Box 2123, La Jolla, CA 92038. Consists of 3 publications:

- 1) "Managing the Search Function, Instructors Course Guide," edited by Paul Green and Rick LaValla. Published by NASAR. 200 pages.
Contains all the lesson plans, objectives, and list of training aids needed to present the standard 5 day course.
- 2) "Course Handouts" published by NASAR. 86 pages.
Contains 9 key handouts necessary for the SAR Management Course.
- 3) "SAR and Emergency Response Training Manual, A Model For Joint Operations and Project Missions," edited and published by NASAR. 400 pages.
Contains a wealth of articles, writings, checklists, comments, resource information, bibliographies, all in a format conducive to SAR planning and operations. It is also designed to be the pre-work and reading manual for the SAR Management Courses.

*All 3 publications are in a packaged priced at \$45.00.

WINTER SURVIVAL, A CONSUMER'S GUIDE TO WINTER PREPAREDNESS, Dept. of Energy, Office of Consumer Affairs, Wash. D.C. 20585. 18 pages. Price, free. Available from Dept. of Energy, P.O. Box 62, Oak Ridge, Tenn. 37830.

Contains information on winter and winter storm preparedness and survival, from the city to the wilderness. Good for preventive SAR education efforts.

PLANE SAFETY AND SURVIVAL, by Eric G. Anderson, Aero Publishers, Inc., 1978.

Contains chapters on every type of terrain and weather flying with special emphasis on safety preparations for each flight and the survival needs should the airplane be forced down in the desert, the mountains, on frozen terrain, in forests, wetlands, or in the water. (Review quoted from *SAFE Journal*, Dr. Ron Morris)

New Visual Aids, Films, Slides, etc.


SAR MANAGEMENT COURSE GRAPHICS, Available from Emergency Response Institute, 9035 Golden Given Rd., Tacoma, WA 98445. Contains over 150 graphics either in overheads (\$300.00) or slides (about \$150.00) designed to be used with the *MANAGING THE SEARCH FUNCTION, INSTRUCTORS GUIDE*. Send \$1.00 for a catalog showing all the graphics plus other information detailing the SAR management course content.

TRACKING SLIDE PROGRAM, Mountain Rescue Association, P.O. Box 396, Altadena, CA 91001. 50 slides, cost \$20.00 plus state tax.

The program includes a written narrative, outlining the techniques necessary to learn step-by-step tracking.

Well, that about drains my files for now. Let me hear from you. I am interested in anything or any event that will help to improve SAR training and operations. Send in a description, how much is it, where can it be obtained, how does it apply to SAR, any editorial comment ad infinitum. Send to Rick LaValla, c/o Search and Rescue Magazine, P.O. Box 153, Montrose, CA 91020. ●

DARE TO BE THE PURSUER



Don't be the prey — helpless in emergencies! Prove your power potential by saving others!

SEARCH AND RESCUE MAGAZINE teaches you the search, survival and rescue skills that mean the difference. Subscribe now to our quarterly and add a super new dimension to your life!

Mail to: Search and Rescue Magazine
Box 153 C
Montrose CA 91020 USA

Order now and **SAVE** up to **\$15.00** over newstand prices!

SAVE \$15.00 on a 3 year \$30 subscription, enclosed is \$27

SAVE \$ 9.00 on a 2 year \$21 subscription, enclosed is \$19

SAVE \$ 3.00 on a 1 year \$12 subscription, enclosed is \$11

Name _____

Street _____

City _____ State _____ Zip _____

Enclosed is Check VISA Mastercard

Card # _____

Expiration Date _____

CALENDAR

PUBLISHER'S FORUM

JULY 24-26

Nat. Sym. on Medical Accountability, Legislation & Funding
Disneyland Hotel, Anaheim, California
Ms. Alison Bishop, Emergency Medical Services
P.O. Box 355, Santa Ana, CA 92701
714) 834-6447

JULY 29 - AUGUST 4

National Cave Rescue Seminar
Hqtrs. NY State Dept. of Environmental Conservation,
Albany, New York
Daniel I. Smith, National Cave Rescue Coordinator
834 Louise Drive, Petaluma, CA 94952
707) 763-4884

JULY 31 - AUGUST 2

Supervisory Liability, Responsibility and Accountability
Milwaukee, Wisconsin
Marian Kirchwehm, Harper & Row Media
10 East 53rd Street, New York, NY 10022
212) 593-7425

AUGUST 4-11

The 9th Intl. Physicians Underwater Medicine Program
Freeport/Lucaya, Bahamas
PUMP, Box 530344, Miami, FL 33153
305) 754-7480

SEPTEMBER 13-16

NASAR 79
Baton Rouge Hilton, BATON ROUGE, LOUISIANA
Lois Clark McCoy, Administrator
National Association for Search and Rescue
P.O. Box 2123, La Jolla, CA 92038
714) 268-3266

SEPTEMBER 25-27

Handling Hazardous Materials-Transportation Emergencies
Denver, Colorado
Roberta Frye, Natl. Fire Protection Assoc., Ed. Tech. Unit
470 Atlantic Avenue, Boston, Massachusetts 02210

SEPTEMBER 25-27

Civil Liability: Negligence
Atlanta, Georgia
Marian Kirchwehm, Harper and Row Media
10 East 53rd Street, New York, NY 10022
212) 593-7425

SEPTEMBER 27-30

Civil Air Patrol National Board Meeting
Hotel Utah, Salt Lake City, Utah
Civil Air Patrol News, National Headquarters
Maxwell AFB, AL 36112

OCTOBER 15-19

State SAR II
Seattle, Washington
Major Merino
National SAR School
212) 668-7421

OCTOBER 16-18

Press Management Techniques
New Orleans, Louisiana
Marian Kirchwehm, Harper & Row Media
10 East 53rd Street, New York, NY 10022
212) 593-7425 ●

Dennis E. Kelley

JOHN GUNSON, Summit Co. SAR Co. has had his Mission Report Form adopted by NASAR. . . AL McCULLOUGH USCG Headquarters sz he hopes that NASAR will become involved in some international SAR conferences. . . MIKE BURRIER USCG Academy, New London, CT used to teach school in Glendale, CA. . . Lt. Col. BOB MATTSON USAF, CAP Liaison went to Portugal for a NATO Search Theory Conference. . . RICK SMITH, NPS Legislative Liaison was in Peru in May for a month's river exploration with ROD NASH, UCSB. . . MIKE LINLEY, NPS Ranger Activities is addressing SAR legal regulations. . . In a major NPS SAR breakthrough, TONY ANDERSON has signature to NPS policy to permit 1½ million dollars for unspecified SAR. . . HERB KINCEY, Santa Fe, NM, is preparing a Search Boss Mission Report article. . . Rear Admiral MALCOLM CLARK, Superintendent, USCG Academy, researched the 1912 Kodiak, AK volcano eruption for an excellent NASAR banquet presentation. . . WES REYNOLDS, NASAR board member helped me keep down travel expenses at New London NASAR business meeting at Estes Park, CO, in June will be great. . . Lt. Col. RAY HUFNAGEL, USAF Pentagon, has released a draft version of his report on the Emergency Response Communications Program (ERCP). . . Air Force DOD Deputy Assistant Secretary LLOYD MOSEMANN II sz SAR is a practical application of the classical statement, "*Be your brother's keeper*". . . ART JONES, NASAR President, sz an old injury keeps him from running in the upcoming Baton Rouge Conference. . . STEVE HUDSON of PMI has done an article on static rescue rope. . . CDR. BRANDT BECK would like to combine Lemoore's and Washington State's helicopter manuals. . . MEL OLKOWSKI, NY, has plus and minus feelings. . . Lt. Cdr. JIM WHITE, USCG, may soon headup the USCG Nat. SAR School on Governor's Island. . . Pennsylvania Bureau of Aviation's SAMMY SNIDER is helping NASA's BERNIE TRUDELL collect detailed ELT malfunction incidents. . . Speaking of LARRY TWEDELL, of Sierra Madre SAR team, he is still active in SAR with "SAR," his German Shepherd. . . BOB KOENIG, American Rescue Dog Assn., TX, is NASAR's new membership chairman. . . TOM DRABEK, Ph.D., University of Denver, in a recent report, "*Multiorganizational Coordination: It Can Be Done*," says uniquely in SAR missions the victim has priority, an attitude not a widespread feature of American society at the present. . . RICK GOODMAN, NASAR Board member sz DON HAMMOND is NM's SAR Resource Officer. . . SAMMY SNIDER Penndot sz Mountain Rescue should be aware of the lithium battery hazard. . . RICHARD COPELAND is back from Oakland and has reinstated his NASAR membership. . . RAY PRIZGINTAS, Montrose SAR team, ran 2:55:40 in the 1979 Boston Marathon. . . Rear Admiral JOHN D. COSTELLO, USCG (select) will become the new chairman of ICSAR replacing NORM VENZKE. . . Lt. Col. GUY SENTIMORE USAF will become the DOD representative to ICSAR replacing RAY HUFNAGEL. . . Sgt. LEE HAHN, King Co. Sheriff's Dept., WA is receiving cudos for his SAR efforts from researcher Dr. TOM DRABEK. . . Lt. JOHN COLEMAN, Los Angeles Co. Sheriff's Dept., claims he made his very first mistake recently when no helicopters showed for training. . . TOM STAADT is now Commander of his Rescue Army Air Unit. Tom is also NASAR Secretary/Treasurer. I owe Tom an apology for printing the wrong photo recently. . . JIM MAHER, Mississippi SAR Coordinator has replaced JIM LORD of New York on the NASAR Board. . . ERIC HUGHES of Malibu Mtn. Rescue asks who is responsible for missing Aircraft Search Coordination. . . TOM VINES, NASAR Technical Rescue Committee Chairman, sz CHRIS STUBBS is the new President of the Appalachian SAR Conference. . . J. J. POINDEXTER, Santa Catalina SAR, and friends are putting it all together for their victim. They'll soon be operational. . . ●

If there were only one kind of outdoor person, we'd make only one kind of sleeping bag.

It doesn't matter whether you're into back-packing or bicycling, climbing or canoeing, fishing or family camping. Because no matter which of these you enjoy the most, or even if you enjoy them all, CAMP 7 has your bag.

If you camp where it gets wet or damp, we have five premium-quality PolarGuard® bags for you to choose from. The CAMP 7 *Pioneer* is the perfect lightweight bag for summer backpacking, bicycling, and canoeing. And for colder conditions it can be used as an outer shell around several other CAMP 7 bags, creating the unique CAMP 7 SYSTEM concept.

The CAMP 7 *Shenandoah* might be just your bag: it's versatile, well-built, lightweight and warm. And our *Shenandoah Plus* will keep you warm all the way to 5°F. Also, our rectangular and roomy *Summersault*—with its double-layer top and single-layer bottom—offers maximum flexibility for campers and fishermen.

You'll be happy to know that CAMP 7 down bags

give you just as much freedom of choice. If you're into winter mountaineering and camping, the -5°F rated *North Col* keeps you warm as toast. Our *Arete*, weighing only 2 lb., 6 oz., is excellent for backpacking and bicycling, or for anyone concerned with warmth to weight efficiency. And for those of you who like a roomy sleeping bag, the *Mitten* is a very comfortable semi-rectangular bag which also opens to form a down quilt.

CAMP 7 bags are for lots of different people, yet they all have several things in common: They're high-quality sleeping bags that have been carefully designed and constructed for long-lasting protection. And each is backed by CAMP 7's complete, lifetime limited warranty.

CAMP 7 bags are available at fine back-packing/sports specialty stores

everywhere.

CAMP 7,
Boulder,
Colorado.

CAMP 7

