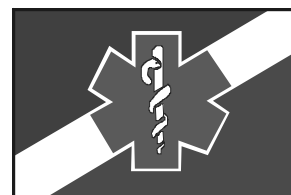


THE RESCUER



Jan. - Mar. 2000

Number 28

“There Are No Lifeguards in the Gene Pool”

Making a position for water rescue standards in public safety agencies

by Jim Segerstrom and Phil Turnbull

At the time our nation has experienced a decline in destructive fires, there has been an alarming, yet predicted, rise in the number of swiftwater/flood rescues being conducted. Since 1992, North America has experienced an unprecedented number of catastrophic flood events. In fact, more Americans are killed directly by floods, or by storm surges caused by hurricanes, than any other type of natural disaster. The largest natural disasters in American history, in terms of lives and property lost, have been flood related.

All of this should have served as a wake-up call to those responsible for determining the training and safety needs of personnel who respond as part of our nation’s emergency services. Unfortunately, most people have slept through that wake-up call.

For example, last year, 51 civilians died in North Carolina as a result of Hurricane Floyd. Yet, little is being written today about the public safety response, property losses and the impact on the lives of the survivors. According to North Carolina-based Swiftwater instructor and author Slim Ray, if 51 Americans had been killed in a terrorist attack a year ago, we would still be dissecting the incident—not because we value those victims more than people killed by floods, but because we can see there is a very real possibility that we may have more terrorist attacks and we want to be ready.

So, is something about the growing swiftwater/flood rescue problem escaping us?

The Problem

New studies show that the earth is warmer than it has been in thousands of years, and industrial output of so-called greenhouse gasses—namely carbon dioxide—are responsible. In an interview in *Popular Science Magazine*, Jerry Mahlman, director of the National Oceanic and Atmospheric Administration’s Geophysical Fluid Dynamics Laboratory at Princeton University, says: “There is little time left to debate.” Global warming is here. The ultimate outcome is unknown, but the world’s temperature is rising.

What is expected is more severe, erratic and unpredictable weather, coupled with rising sea levels. The University of California predicts that massive coastal flooding, warmer winters, less snow and more rain will result in a rise in the average temperature in California of between 2°-6° degrees over the next four decades, with the rise in temperature (and increased flooding) adversely affecting the state’s food production.

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Wet Spring On Tap For Pacific Northwest, Appalachia

New USGS Research on Historic Streamflows Maps La Niña's Impacts

This year's La Niña spring could bring increased streamflows to the Pacific Northwest and Appalachia, but lower streamflows in the Southwest, in parts of the Northeast and center of the nation, according to a new report by the U.S. Geological Survey and its partners.

The new report, by the USGS, the Scripps Institution of Oceanography in La Jolla, Ca., and the Western Regional Climate Center in Reno, Nv., shows areas of the country where it is more likely that streamflows will be high — including flooding — and areas where streamflows will be low — which could spell drought. The new maps are actually a statistical survey that identifies areas where, during past La Niña years, very high flows and even floods and where very low flows have occurred.

The new maps complement other long-range predictions for this winter and spring from other agencies and institutions that forecast temperature and precipitation based on global conditions, said USGS hydrologist Michael D. Dettinger, one of the report's authors.

“Because streamflow has its own unique variations apart from those of precipitation and temperatures,” he said, “We went back 50 to 100 years and looked at historic streamflow data to make these predictions. Increases in precipitation do not always produce flooding, so we've focused directly on the streamflow connections to La Niña. We've looked at La Niña years and determined where there's a higher chance of having unusually high flows and where there's a higher chance of having low flows.

“Because the earth's water system is more complicated


and has a longer memory than simply precipitation due to additional variables such as hydrogeology, soil moisture and snow pack, streamflows respond to climate variations for a longer period of time,” Dettinger said. “This allows flow predictions that are useful for several months longer than we can expect than when simply predicting precipitation.”

He said the report is aimed at assisting emergency managers and water-use managers in their planning for this year's La Niña, a subject of intense interest to water managers, who want to extend the lead time for important allocation decisions (especially in the West).

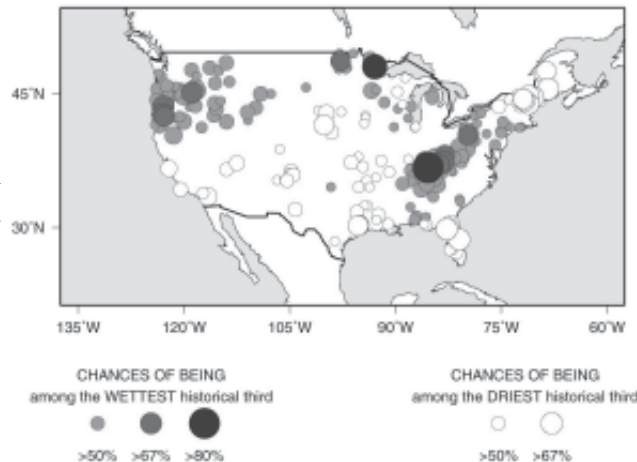
“We can't control precipitation. Either it comes or it doesn't. But we can manage water,” he said. “We can decide now to intervene and make changes to reservoirs or divert water

long before an emergency happens if we know the likelihood of having a problem is increased. So the streamflow forecasts are of special interest.”

The USGS operates a network of more than 7,000 streamflow gages across the United States. Data from the active stations, as well as from discontinued stations, are stored in a computer database that currently holds mean daily-discharge data for about 18,500 locations and more than 400,000 station-years of record. Near real-time streamflow information is available online at <http://water.usgs.gov>.

The full text of the report is available in a PDF file, and a full-color map is available at <http://www.usgs.gov/themes/lanina.html>. 

RIVERS WITH UNUSUALLY HIGH CHANCES OF BEING WET OR DRY DURING LA NIÑA SPRING 2000



Melton Receives Medal



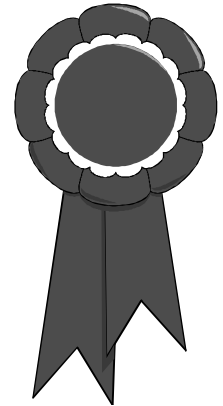
Tom Melton, a deputy with Sacramento County Sheriff’s Department and a Rescue 3 Instructor, received two Life-Saving medals at the Sacramento County Sheriff’s Department annual awards and commendations banquet on Tuesday, February 15, 2000 in Sacramento, CA. Melton will be adding these two medals to a Silver

Star for “conspicuous bravery” (another Life-Saving medal) and a unit citation ribbon that he already holds.

Melton humbly accepted the two medals saying, “Some of us just fall into situations where we get noticed.” The two awards were presented to Melton for his outstanding work at two separate incidents. In the first incident, Melton helped resuscitate an 18-month-old girl at a two-car, triple-fatal crash. During the second incident, occurring only a few months later, Melton recognized that a 3-year-old boy was not breathing because he was dangerously overheated. There were several attempts to resuscitate the boy by bystanders. Melton quickly cut off the boy’s clothes and used ice bags to help the boy recommence his breathing.

Congratulations to Tom and the 34 other members of the Sacramento County Sheriff’s Department who were recognized for going “above and beyond.”

Nominations for Higgins-Langley Award Needed



The Swiftwater Rescue Committee of the National Association for Search and Rescue is seeking nominations for the 2000 Higgins and Langley Memorial Awards for Outstanding Achievement in the Field of Swiftwater Rescue.

The awards recognize outstanding achievement in the field of swiftwater rescue. In addition to individual incidents and acts of heroism, swiftwater rescue team efforts, those who have dedicated years of service to developing and implementing swiftwater rescue training programs, and public safety-media-education efforts, will be considered for nomination.

The deadline for submission is July 15, 2000. For more information and copies of the nomination forms, please send a self-addressed, stamped envelope to:

Mr. Paul McMinn
NASAR-Swiftwater Rescue Committee
c/o South Bend Recreation Dept.
727 Eddy St.
South Bend, IN 46615
Telephone (219) 235-9328 Fax (219) 235-5566

Or visit CFS Press web site at <http://www.cfspress.com/> and click on the “Higgins and Langley Memorial Awards” link.

People on the Move

Jim Segerstrom has left Rescue 3 to pursue projects of his own. He remains an active instructor and a major stockholder in the corporation. We all wish him well!

Slim Ray has joined Rescue 3 as a consultant primarily to act as a Technical Adviser as well as review curriculum content. Slim is well known for his many rescue books and articles and is well respected worldwide as one of the leading authority in all facets of rescue.

Long time employee Tracey Clark has been promoted to the position of Training Coordinator. She will be working closely with Gaile Lane to set up classes and work on foreign markets. Ms. Clark has recently graduated from California State University, Sacramento with a degree in International Business and a minor in Spanish.



Continued on page 8

"Lifeguards" continued from page 1

International treaties, negotiated two years ago in Kyoto, Japan, to cut vehicle emissions, are too little, too late. The British Meteorological Office predicts that up to 94 million people a year will be impacted by floods in the next 30 years if emissions of CO₂ and other gasses continue unchecked. If such pollution is radically controlled, the number affected will be "only" 34 million—up from the present 10 million—20% of whom live in the Western Hemisphere.

The Response

When asked how public safety agencies have responded to this well-publicized and disturbing trend, most experts in the field reply, "What response?" Actually, there is so little attention to the subject that giving an accurate report card is difficult. Here are a few facts:

- The chances of an American firefighter dying by drowning are four times greater than dying by fire.
- Most flood-related fatalities occur in cars on flooded roadways, where drivers have chosen to ignore barricades. Yet, most public safety agencies do little or no public education on the subject, nor have they trained or equipped their personnel to handle this dangerous and all too common emergency.
- On average, there is but one life jacket for every 15 public safety employees, yet, every state and province of the U.S. and Canada experience flood events on a regular basis, and federal safety standards specify that flotation devices and water rescue adjuncts will be

available on any site and to all personnel on site where there is a danger of drowning.

- Water-rescue training, even basic swimming skills are not a part of most emergency training entry-level courses for fire, police or EMS. In fact, swim tests have been invalidated in many jurisdictions, as they give some applicants unfair advantage over others. Approximately 750,000 firefighters, law-enforcement officers, and EMS and rescue personnel in the U.S. are either weak or nonswimmers.

- The number of legal cases arising from either "failed" water rescues, or failure to prepare for such rescues, is on the rise.

- The average public safety agency is ill-prepared for flood response, and only a few states have attempted a regional response. There is no national response system. Several times, FEMA's USAR teams have been activated for flood response, but even these monolithic giants in the rescue field have failed to address water rescue through training or equipment. (In fairness, it may not be one of their missions, but one has to ask: Why are they being activated?) Furthermore, experts agree that it is local response capabilities that save the most lives.

Where do we go from here?

It is plain to see that the problem of water-rescue preparedness is coming home with a vengeance. What could have been an inexpensive fix if started 10 years ago, may well prove to be an expensive process today. The longer we delay the response, the

higher the cost.

Emergency services administrators should be making training decisions based on a community risk analysis,

TRAINING RESOURCES

American Red Cross
www.redcross.org

National Safe Boating Council
www.safeboatingcouncil.org

National Safety Council
www.nsc.org

Swiftwater Rescue Advisory
Committee
www.nasar.org

American Canoe Association
www.aca-paddler.org

Internatl Assoc. of Dive
Rescue Specialists
www.iards.org

YMCA
www.ymca.org

Rescue 3 International
www.rescue3.com

U.S. Power Squadrons
www.usps.org

U.S. Coast Guard
www.uscg.mil

and prioritizing resource allocation to meet those needs. Unfortunately, the last three decades have seen a growing trend toward taking on programs, not to meet real or potential needs, but for other reasons—either for budget justification, or to keep up with trends (the current “sexy” program).

Certainly, swiftwater rescue has been chosen as the “sexy” program within isolated pockets throughout the last two decades. Between several state river-rescue programs, public safety dive-rescue organizations and Rescue 3 International, it is likely that more than 100,000 responders have been trained in the U.S., but there are still several million who lack even a basic awareness level about water rescue.

The average cost for annual hospitalization of a brain-dead “survivor” of a drowning incident is approximately \$100,000. Some of these survivors continue to “live” for decades. Yet, administrators still contend that water rescue is “too expensive.”

Most of this should seem obvious. Yet, in a recent discussion with a metropolitan battalion chief, it was necessary for Swiftwater instructor and STARFlight Program Director Casey Ping of Austin, TX, to make the following comparison: If a Swiftwater rescuer showed up at an active working fire wearing a life-jacket and wetsuit and volunteered for the interior attack, the incident commander would certainly turn

him away. Why, then, is it still common practice for firefighters to wear structural firefighting clothing at water rescues?

As Swiftwater rescue instructor Kim Little, of New Zealand, so aptly put it: “There are no lifeguards in the gene pool.”

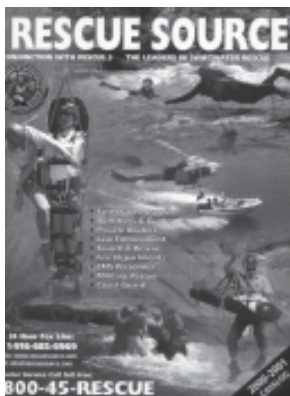
The Solutions

If we agree that the number of water-related incidents will continue to rise, public-safety administrators need to take a serious look at the risk posed to their employees, and some should make water safety and water-rescue training regular line items in their budgets.

Certainly, there are a substantial number of organizations they can turn to for information on training and standards (see resource guide on page 4).

There are state boating law administrators in all 50 states who are concerned about water safety. As already mentioned, federal OSHA and state insurance and occupational safety agencies also have regulations and standards that affect water rescue and working operations.

Finally, there is a new document that is perhaps among the most significant for the rescue community, whether fire service or not. In November, 1998, the



New Rescue Catalogs are Mailing!

The Rescue Source team has been hard at work this winter putting together information on all the newest rescue “toys”. The result is *The Rescue Source’s* 10th annual catalog!

New for 2000

- The Vertical Stretcher from Australia is designed for both horizontal and vertical lifting as well as confined space. \$495.00
- The Swim Guard propeller guard was tested by the U.S. Coast Guard and has been proven to provide the most effective protection for you prop! \$295.00 to \$349.00

There are many other new and exciting items plus all of your old favorites. Look soon for your catalog and call if you need extras!

(Prices listed are retail and do not reflect normal instructor or volume discounts.)

National Fire Protection Association finalized standard 1670, titled *Standard on Operations and Training for Technical Rescue Incidents*.

NFPA 1670 In a Nutshell

Standard 1670 covers all forms of light to heavy rescue (including USAR); all water and rope rescue; and even tackles wilderness search and rescue.

In menu fashion, the standard asks your agency to look at each type of rescue and select from three levels of operation. Options include: a basic “self-protection” level, a “we can do this” level, and a “wishy-washy” level in the middle. Following hazmat, the levels are titled Awareness, Operations and Technician.

The standard suggests that the best way to choose a level is by doing a study, or a “hazard analysis and risk assessment,” for each type of rescue. It would appear that you can ignore the standard for any type of rescue that truly never happens, or where somebody else gets up and your people stay in bed. If your people might arrive first, or might participate in the rescue to some degree, your minimum option is awareness. For those of us who get up, there are a number of requirements that apply to all types of rescues, no matter what the operating level.

- We need to establish procedures of all types, design mutual aids plans, and learn to access state and federal plans. Then, we have to equip ourselves, maintain the equipment, train, continue training, and ensure the “all-around” fitness of our responders.
- We must run our incidents up to standard, using an incident management system, site control and safety officers, as well as scene accountability and evacuation systems. We are to provide a minimum of BLS medical care and ensure use of appropriate PPE.
- The standard now asks that we document everything to cover our behinds, keep our plan updated, and they want us to comply with all applicable laws.

While all NFPA standards (and, in fairness, most “standards”) are difficult to negotiate, the multiple types of rescues and their sub-types make 1670 even more complicated. But those who are dedicated or self-abusive enough to study it find that it gives flexibility in return.

The options for meeting the standard are numerous, including the use of auto-aid agreements and interagency teams. Even when delivering technician-level services, simple awareness-level training is all that is needed for the bulk of personnel. A core team of technicians, backed by an operations level group roughly four times larger, will usually suffice.

Even if your agency is not a fire department, familiarizing yourself with NFPA 1670 is still a good idea, if for no other reason than to provide insight into this new national benchmark on technical rescue. You can bet any litigating attorney worth his \$2,000 suit will use it against you. Beyond the fear factor, it can be a tool to help you identify your current capabilities and prioritize future objectives. It will make you think. There is no comparable comprehensive assessment tool available for technical rescue.

Basic Training Objectives

Some common objectives can be identified that will help an agency establish training that meets a consensus standard. At the completion of such a course of study, the student will minimally be able to:

- List water safety guidelines for activities around the water.
- Describe the different kinds of open water environments and their dangers.
- Explain primary causes of drowning.
- Describe how to prevent such fatalities.
- Explain the importance of personal protective equipment (PPE).
- Explain the legal obligations of a water rescuer.
- Understand and be able to implement an “assessment phase” at a water incident.

- Identify resources for safe water operations.
- Be able to preplan a full emergency water response.
- Be able to safely manage such a site.
- Be able to recognize general hazards associated with water response incidents.
- Be able to determine whether the call is a rescue or a recovery.

- Conduct a through risk analysis to determine the level of training needed to deliver such a service.
- Make sure they train personnel to a recognized standard of care.
- Thoroughly document all training, responses and rescues.
- Establish written department training and equipment guidelines.

Basic Water Safety Guidelines

Additionally, research reveals common ground as far as water-safety guidelines:

- 1) Learn to swim. Make sure all personnel responding have water survival skills appropriate to the environment.
- 2) Know how to respond to a small craft emergency.
- 3) Don't attempt swimming rescues without specialized training and equipment.
- 4) Wear a PFD within 15' of the water's edge.
- 5) Be aware of local water hazards and conditions.
- 6) Pay attention to local weather.
- 7) Know how to prevent accidents, and how to educate the public.

Conclusion

Public safety officials are quickly realizing that water emergencies are no longer exceptional events. After years of routinely responding to occasional water rescues, the public fully expects such responses to continue, despite the fact that the situations facing personnel will increase in complexity and numbers in the next 30 years. Administrators would be well advised to:

As events are sure to reveal in coming years, the public, the media and likely the legal system, will expect nothing less.

Reproduced with permission from Advanced Rescue Technology Magazine

Chris Jonason, Rescue 3 Instructor reviews a new training video.....

**In the Surf!
Performance Surf Kayaking -
The Basics and Beyond**



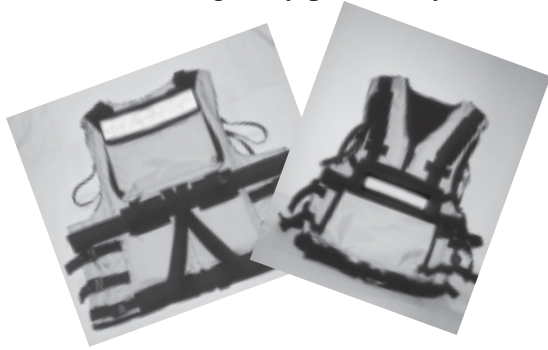
This video is an excellent supplement or addition to anybody's rescue library. It breaks down low to high risk options into a logical working order. Each segment is scenario based with a review of the important points afterwards. The progression of rescue options is excellent and the film quality is very high. Both the dialogue and setups are well organized. We use this video for our own kayak rescue class and highly recommend it.

Produced and distributed by Kent Ford - Performance Video and Instruction, Inc., 550 Riverbend, Durango, CO 81301. Phone (970) 259-1361 or visit their website at www.performancevideo.com

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\$17.50 outside of U.S.

The Rescue Source Announces a New Professional PFD!

The SRT Pro PFD has been designed specifically for Rescue 3 and uses 420 mil. spec. nylon ripstop fabric and one piece flotation material on the back, over the shoulder and down the front anchored by a 1-1/2" nylon chest harness sewn into the waist belt to ensure structural integrity. A first in the industry, this jacket features inserts made of 60 mil. high density plastic in front and back to protect exposed soft organ tissue from impact. The optional extrication leash can be located over either shoulder *(left or right handed) to ensure easy access and one hand operation when the other arm is maintaining body position (you know, an



airway). Velcro over the shoulder to stabilize the extrication leash and/or attach additional reflective material. This PFD has been designed and produced to, and uses materials that, meet or exceed all North American government manufacturing standards.

- Eleven adjustments for best fit
- Adjustable hole straps to prevent flush drownings
- One inside pocket with drain holes
- Bottom seam mesh for fast drainage
- Knife/strobe attachment points on both lapels
- Extrication leash included
- Impact protection
- Two detachable outside pockets (sold separately)

Price is retail and does not include any instructor or volume discounts.

Item #PF2222

\$255.00

"People on the Move" continued from page 3

Fred "Rick" Wright has been working with Rescue 3 on a new program to offer the new Swiftwater and Flood Rescue program to the major fire science institutes throughout the country. Rick has recently retired for the San Joaquin County Sheriff's Office after 25 years and has a Master in Marketing and a minor in Business. To date interest has been very good. If you are a Rescue 3 instructor who is currently working a community college or university we would appreciate your assistance. We would like to hear your suggestions about setting up with other such groups.

Nancy Rigg and Steve Miller made our industry proud with their recent testimony before the Congressional Sub Committee looking into the recent flooding due to Hurricane Floyd. 🗡️

Curriculum Committee Moves Forward

The curriculum committee that was formed in 1999 to create the new Swiftwater and Flood Rescue Program has moved on to new assignments. These instructors are chairing work on the following:

- Alan Hartford on Recertification program.
- Phil Turnbull on rewrite of the SRT Unit 1 Instructor manual.
- Mark Hogan on the SRTA Instructor Manual.
- Chris Jonason on Whitewater Rescue Workshop which is a two day class for kayakers, guides and rafters. 🗡️

Veterinary Medical Assistance Team Saves Animals Stranded in Hurricane Floyd



Floods resulting from Hurricane Floyd's devastating path through North Carolina caused severe hardship to people and animals. During the week of September 18, 1999, Professor John Madigan and student Jacqueline Whittemore, both of the school's Veterinary Medical Assistance Team, answered an emergency call for help from the International Fund for Animal Welfare and conducted specialized

rescues, including airlifting large animals from flooded areas to safety. Here, in their own words, are some of their experiences.

John Madigan relates:

It was a challenging week, physically and emotionally, with catastrophic losses exceeding 500,000 farm animals. The devastation to the state and the people of North Carolina, many without homes and nothing left but the clothes they were wearing, was a tragic situation. We were overwhelmed by the gratitude, the thanks, the hugs, and the tears of the people whose animals we helped. We were also struck by the media coverage of our efforts and realized that such reports let the people of the state know that others, in this case veterinarians from the University of California, had come to help. As one news article stated, "It was a bright spot in a day with little else but devastation."

The organizational and rescue participation of Jacqui Whittemore was outstanding. Her goal is to pursue a

career in veterinary disaster medicine; this unique opportunity has given her insight and training that will be the foundation of a most valuable career.


Some comments from Jacqueline Whittemore, coordinator of the Veterinary Medical Assistance Team:

Animal rescue is about humans. It's not about one horse, or one dog. It's so much more elemental. For example, we saved the horse of a man who had lost everything. He was one of the burly, stoic men we met who gave us bear hugs and told us how much our actions meant to them.

Some people want to know why resources should be used to save animals when so many people have needs. During a disaster, animal rescue has a rejuvenating effect on the community. Here's why. A woman moving to a new home as the flooding hit had retreated to her old farmhouse. She had taken in animals for 30 farmers as well as a family who had been flooded out of their home, but she had been unable to retrieve her own cats from the new house where they had already been moved. She was caring for animals and people (and put us up for several nights), but we didn't see her smile once. When John (Madigan) brought her cats in safely, the smile on her face could make you cry.

This woman told us that she thought we were angels. But even as community asked us for help, people helped each other—and us—in return.

When we left for Raleigh on the last day, the woman in the farmhouse—the one with her five cats—was still smiling.

The UC Davis-Veterinary Medical Assistance Team is a volunteer service of faculty, residents, students, and staff at the School of Veterinary Medicine who provide emergency animal rescue assistance and specific forms of veterinary medical care during a declared disaster. 

RESCUE 3 INTERNATIONAL

PO BOX 519

ELK GROVE, CA 95759-0519

Surfin' the Web



- <http://www.emergency.com/> --- This is a commercial site featuring 24 hour news, information, analysis and coverage of disasters and major emergency events. Features information of interest to a variety of different disciplines.
- <http://www.disastercenter.com/index.html> --- Another commercial site that has a disaster-related chat room, links to a wide variety of unusual web pages such as the "Asteroid and Comet Impact Hazards" page by NASA. The site also includes a number of interesting statistical lists.

Calendar

- February 28-March 5, 2000. 2000 FDIC in Indianapolis, IN. Phone 888-299-8016.*
- March 23-26, 2000. *EMS Today* in Orlando, Florida. Phone Jems Communications at 800-266-5367.
- March 27-April 1, 2000. FDIC West 2000 in Sacramento, CA. Phone 888-299-8016.*
- April 3-6, 2000. *Fire Rescue West 2000* in San Jose, CA. Phone 800-308-6397.*
- May 31-June 3, 2000. EMS Expo in Charlotte, NC. Phone 877-EMS-EXPO.*
- June 3-5, 2000. *SR/DR 2000* in Miami Beach, FL Convention Center. Phone: 888-633-6674.
- June 20-25, 2000. *InterSchutz* in Augsburg, Germany. International Exhibition for Fire and Catastrophe Prevention and Rescue Services. E-mail interschutz@hfusa.com
- July 20-22, 2000. *Firehouse Expo 2000* in Baltimore, MD. Phone: 877-791-2478.*

**Rescue 3 and The Rescue Source will be exhibiting at these shows. Please come visit with us!*