

# THE RESCUER



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## High Angle Rescue Incident

By Alan Hartford

On July 31, 2001 my company was dispatched as part of a high angle/confined space rescue team. Upon arrival, our company was given the task of climbing a 164 foot water tower to recon a situation. Our initial information was that a victim was possibly trapped inside the water tower. His relative was trapped on top of the tower and was requesting help.

The situation had started four days earlier in a protest that was being monitored by the local police department. Sometime in the last four days the person trapped had become incapacitated. The relative on top of the tower had discovered this and had called for help.

After donning harnesses and dividing up a minimal cache of high angle equipment our company ascended the tower. We were met by the relative, who was upset and confrontational. After a heated discussion we were able to get the relative calmed down and began an assessment of the situation. The individual trapped in the water tower was found to have only minor injuries, and the relative on the tower appeared to be uninjured.

We concluded that the rescue would be done in a series of phases. Phase one was removing the relative

to the catwalk 20 feet below. Phase two was getting him to the ground. Phase three was the evaluation of the trapped victim. Phases one and two were fairly simple once the relative was calmed down. He was fitted with a Class 3 harness and another department rescuer ascended the tower and escorted the relative safely to the ground.

Evacuation of the trapped victim was a different matter. Evaluation revealed a broken ladder inside the tower and a victim who was mobile but confused. Food and water was lowered to the victim, as it had been four days since he had had either. After consuming both the food and water the victim's

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On September 11th, a terrible crime was committed, not just against the United States, but against the entire human family.

Everyone at Rescue 3 International and Rescue Source wish to extend our deepest sympathies to the victims, families and particularly to emergency service personnel and their loved ones.

May God bless us all!

## Extreme Precipitation Linked to Waterborne Disease Outbreaks

More than half of the waterborne disease outbreaks in the United States in the past 50 years were preceded by heavy rainfall, according to a study conducted at the **Johns Hopkins Bloomberg School of Public Health**. Such rainfall and its subsequent runoff have been assumed to be a key factor in the transport of pathogenic microorganisms. This study represents the first quantitative analysis of the relationship between extreme precipitation and waterborne disease outbreaks at the national level and over an extended period. The results are published in the August 2001 issue of the *American Journal of Public Health*.



“The significance of the association between precipitation and disease is amplified when you consider the effects of global climate change which predict an increase in precipitation in parts of the United States,” says Jonathan Patz, MD, MPH, assistant professor of environmental health sciences at the **Johns Hopkins Bloomberg School of Public Health** and principal investigator of the study. “As the temperature rises, climatologists expect more intense rainfall events and, as our study suggests, a potential increased risk of waterborne disease outbreaks as well.”

To analyze the relationship between precipitation and waterborne diseases, the researchers used data from the United States Environmental Protection Agency of the 548 reported waterborne disease outbreaks in the United States from 1948 to 1994. A waterborne disease outbreak is defined as an incident where a drinking water source causes two or more persons to become ill at similar times. The most common type of disease was “acute gastrointestinal illness.” The data included the infectious agent, the

community and state where the outbreak occurred, and the month and year of each outbreak. The outbreak source was designated as either surface water or groundwater contamination.


This data was combined with precipitation data from the National Climatic Data Center. Total monthly precipitation readings from weather stations across the United States from 1948 to 1994 were recorded and assigned to the 2105 watersheds in the United States. A watershed acts as the drinking water source for the encompassing area. The city or county where each outbreak occurred was also recorded to its corresponding watershed.

The researchers found that 51 percent of the outbreaks were preceded by extremely high levels of precipitation, levels which was in the top 10 percent of accumulated rainfall over the period studied. Sixty-eight percent of the outbreaks were preceded by precipitation levels in the top 20 percent of accumulated rainfall. After controlling for variations across regions and seasons, this association remained significant.

Outbreaks due to surface water contamination, which accounted for approximately 24 percent of all outbreaks, were more associated with extreme precipitation occurring during the month of the outbreak and one month prior, while outbreaks due to groundwater contamination, which accounted for approximately 36 percent of all outbreaks, were more associated with extreme precipitation occurring within a three month lag preceding the outbreaks. The water contamination source for the remaining 40 percent of the outbreaks were undetermined.

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“Further research incorporating other site-specific parameters such as land use patterns and treatment facility specifications, is needed to allow for the development of more localized predictive models,” advises lead author on the study, Frank Curriero, PhD, an assistant scientist in biostatistics at the **Johns Hopkins Bloomberg School of Public Health**. “Such research will be vital to water managers and public health planners.”

*This study was supported by a STAR grant from the United States Environmental Protection Agency, Office of Research and Development.* 


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## Announcements

■ Congratulations to Instructor Trainer Jay Bowdler for his recent promotion to Battalion Chief at Sacramento City Fire Department!

■ The NFPA is offering a free class on blood borne pathogens over the internet. The class only takes 45 minutes and trains the student to awareness level. To take the class, simply go to [www.targetsafety.com/nfpabbbp](http://www.targetsafety.com/nfpabbbp).

■ Cygnus Expositions, in conjunction with Firehouse Magazine, has announced plans to launch Firehouse World Conference & Exposition, February 18-20, 2003 in San Diego, California. This event will replace Fire Rescue West, normally held in San Jose, California. This new annual event will focus on providing leadership, training and education for the fire service.


■ Two websites allow Instructors to advertise classes on line. They are [www.firehouse.com](http://www.firehouse.com) and [www.techrescue.org](http://www.techrescue.org). If you have any problems finding the specific screen where you post the classes, please feel free to call me at 800-457-3728 and I'll be happy to help you. ~Jennifer Turnbull, Marketing/Advertising Coordinator 

## International News

Instructor Abel Vargas recently taught the first two Rescue 3 classes ever held in Columbia. Both were SRT-1 classes, and each had its own unique set of problems that had to be adapted to.

The first class took place on May 25-28, 2001 approximately 2 hours south of Bogota on the Negro (Black) River. The river is rightly named as it is so black that it actually gives the sensation of swimming in petroleum. This is the closest rafting area from the capital and the guides run a class III section since they lack experience and training to attempt the higher-class sections commercially. During the class, he was faced with the challenge of teaching students who didn't have the proper personal gear, as well as water levels changing from low to almost flooding and down again each day. There were also power outages during the class due to extremely heavy rains. During some of the classroom portion, like the test and the paperwork, a couple of candles provided light for the entire class. Everyone was gratified when certificates were handed out .

The second course was taught May 30 through June 2, 2001 in the town of San Gil. It took Abel 12 hours by land to get from the last location to there. Students were shuttled in a Colombian style bus to the Fonce River each morning of the class. Guides on this river do not have access to proper insulation, and due to the fact that this is a “tropical” river, most guides don't wear any more protection than their life jackets. Even so, during the class there was a problem with mild hypothermia each day of the course. The students definitely found out that while in the water insulation was extremely necessary.

Both courses were challenging, but more challenging is the situation of these really young students. Abel said that he realized these guys don't have access to proper gear, training, or a fair income. At least now these guys know the right technique for safety in their environment. 

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mental state improved and he was able to follow simple commands. He was able to attach our lowered rope to the ladder with a carabiner. We hauled the ladder up and secured it into position. We then requested a second crew ascend the tower to assist us in the extrication phase. Throughout the incident additional resources had arrived on scene including our confined space rescue team. We lowered a second line to the victim and he was able to secure himself using a simple larksfoot for fall protection as he tried to ascend the ladder. The second crew and my crew made preparations to turn the fall protection into a haul line should the ladder fail, the victim fall or be unable to negotiate the ladder climb.

Phase four began when the victim began his ascent inside the tank. Slack on his safety line was taken in during his ascent. He was able to get to the top and was assisted out of the tank and onto the roof. He was immediately fitted with a victim harness and webbing chest harness. He was evaluated physically and prepared for phase five: evacuation to the catwalk.

After a rest and more hydration he was able to negotiate the ladder down to the catwalk. Phase five completed, phase six involved preparing him for evacuation down to the ground. A SKED was available for lowering if needed, but after fitting him with a Class 3 Harness, he felt he was able to climb down. A rescuer was chosen and safety lines were rigged for both. After a long descent, both rescue and victim reached the ground and the victim was evaluated by EMS. Phase seven involved removal of all rescuers from the tower. My crew had been on top and involved for four hours without rest, food or water. It was decided that the initial members would descend with safety lines and be followed down by the recent additional crew with fall protection only. All department members reached the ground and the incident was closed.

#### **Lessons learned:**

1. Expect the unexpected. Not all victims regard you as a knight in shining armor. Be prepared for hostilities in situations where you would think they want help.
2. More gear is better than not enough. Preplan minimal equipment to carry aloft, even if your mission is recon. We initially took one 150' rope, one 300' rope, half of our webbing and prusik inventory, one victim harness, one fits-all harness and two RPMs (rack/pulley/mariner's on an anchor plate). Twelve additional carabiners and four pulleys would have been very helpful. Between three personnel this would have been an evenly divided load and as easy to carry aloft as what we started out with.
3. Plan for additional resources early on. Technical rescues are extremely personnel intensive. Do not underestimate the needs of the incident. The Incident Commander was under pressure to release resources early in the incident but he resisted. If an entry had been necessary, all resources on scene would have been utilized.
4. Even though entry was not required in this incident, we are planning to reenact this scenario to its worst-case conclusion. We want to be sure that if an entry was required 164 plus feet above ground, we would be able to conduct the operation effectively. Therefore, take advantage of incidents to put your teams to the test. Simulate and brainstorm incidents to see if you are up to the task. 🗡️

## Untimely Passing

The owners and staff at Rescue 3 and The Rescue Source were saddened by the recent death of our friend and Rescue 3 Instructor, Kenneth E. Crosby. He passed away on June 24, 2001 at the age of 57.



Ken had been a volunteer firefighter for 17 years and a Rescue 3 Swiftwater Rescue Instructor since 1997. He was also involved in San Joaquin County's (CA) urban search and rescue team, the county's fire investigation unit, the sheriff's swiftwater rescue team, as well as teaching rescue classes at Columbia College.

He is survived by his wife, Susan Crosby; two sons, Kevin Crosby and David Crosby; his mother and stepfather Harold and Ruth Barger; two brothers, Donald Crosby and Wayne Crosby; and one grandson.

His unique sense of humor and outlook on the world will be greatly missed. 🗡️

## Rescue 3 International and the Wilderness Medical Associates Join Forces




Two of the world's internationally recognized leaders in their fields have begun working together with curriculum endorsements. Rescue 3 International and the Wilderness Medical Associates (WMA) are endorsing each other's curriculums in a first step to help broaden the perspective on whitewater and swiftwater rescue training.

"Historically, rescue professionals have received rescue training and possibly some sort of medical training at another time," said David E Johnson, M.D., president of WMA. "By endorsing each other's programs this tells students and professionals in the field that swiftwater/whitewater rescue skills alone are only part of the credentials for the rescue professional. A combination of whitewater rescue training with wilderness medical training will help assure that these professionals are skilled in both areas. We are proud to endorse Rescue 3 International's whitewater curriculum."

Experts from each company reviewed the other's curriculum and see this endorsement as the first step in an ongoing relationship.

"This is a step forward for rescuers who work in or around water. This endorsement will encourage professionals to improve their skills and add a more comprehensive approach to wilderness rescue training," said Mike Turnbull, president of Rescue 3 International. "We look forward to a continuing and expanding relationship with Wilderness Medical Associates."

Rescue 3 International is recognized as the world leader in certified water rescue training and is based in California. Established in 1979, they have trained over 75,000 emergency service personnel and other water professionals in water and technical rope rescue. They have over 500 instructors teaching courses worldwide.

Wilderness Medical Associates is a world leader in wilderness emergency medical training for both outdoor and emergency medical professionals. Founded in 1978 by Dr. Peter Goth and now owned by Dr. Johnson, Wilderness Medical Associates teaches courses around the world with curriculum and protocols that are internationally recognized. The company is based in Maine. 


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## A New Type of Flood Control

On August 17, 2001 tribesmen in the Philippines sacrificed a pig to their god atop the Mount Pinatubo volcano as they began a dangerous mission to drain a crater lake and save their communities



from possible flash floods. The workers slaughtered a pig and poured a bottle of gin on the crater for the volcano god, said to live in the volcano, to ask for protection for the project. The 12 tribesmen, accompanied by 2 engineers, plan to chop a notch at the lowest point of Pinatubo's summit to bleed water from the lake, which has risen to within 16 feet of the crater's rim. About 200 villagers have moved out of the likely path of the drained water.

While this is not the type of flood control that is typical in the U.S., it sort of resembles a good old fashioned BBQ, complete with roasted pig and alcohol! However it probably wouldn't go over to well with the animal activists. 

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### Surfin' the Web



- Flood Preparedness Guide [www.nws.noaa.gov/om/ffbpro.htm](http://www.nws.noaa.gov/om/ffbpro.htm) An informational brochure put out by NOAA, FEMA and The American Red Cross.
- Trauma resources and information, with especially good information on helping children cope can be found at [www.apa.org/psychnet/coverage.html](http://www.apa.org/psychnet/coverage.html)
- Flood Information [www.ayudate.org/ayudate/emsafety.html](http://www.ayudate.org/ayudate/emsafety.html) Information about health hazards during and after a flood and how to protect yourself. Available in both English and Spanish.

## Calendar

- October 4-7, 2001. *Texas Rescue Competition*, Garner State Park in South Texas. An annual Emergency Rescue Competition for teams from Texas and other states. For more information visit their website at [www.txrescue.com](http://www.txrescue.com)
- October 17-19 *NFPA OSHA Conference* Minneapolis, MN. This conference covers a wide range of general industry and health care facility safety topics to help you meet OSHA regulations concerning many topics, including: Personal Protective Equipment, Confined Space Safe Practices, Hazardous Materials, and much more. For more information visit their website at [www.nfpa.com](http://www.nfpa.com) or call 800-344-3555.
- April 14, 2002. *National Disaster Medical System Conference*, Atlanta, GA. Purpose is to promote interaction between local, State and Federal public health practitioners and policy makers. Key topics such as Weapons of Mass Destruction (WMD), clinical medicine, mental health, response teams, and international coordination. Participants will have access to the latest in emergency response and coordination capabilities. For more information visit their website at [www.oep-ndms.dhhs.gov](http://www.oep-ndms.dhhs.gov), call 800-872-6367, or e-mail at [ndms@usa.net](mailto:ndms@usa.net)