

Preventing Stress in Wilderness SAR

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It is well known that critical incidents can arouse strong emotional reactions in the emergency personnel who encounter them, and that such reactions can have long-term detrimental effects upon responders. Discussions of critical incident stress (CIS) often describe the pressures facing fire fighters, ambulance attendants, and police officers, but rarely is reference made to the stress experienced by wilderness search and rescue personnel during and after the lost person incident. In this article I shall describe some of the stressors encountered by remote area SAR responders, some of which may be relatively unique or at least unfamiliar to most other types of emergency workers. Means of lessening the impact of incident stressors upon SAR personnel, during the operation itself, rather than their subsequent treatment through stress defusings and debriefings, will be the focus of this discussion.

Sources of SAR Stress

Wilderness search and rescue responders, including members of hasty teams, grid searchers, trackers, dog handlers, and other ground searchers, experience many of the same stresses as other rescue workers. In the lost person incident, land searchers often have to cope with a combination of physical and psychological stressors endured over an extended period of time. For example, a team leader might have to supervise the stretcher carry of a hypothermic victim through several miles of dense brush, monitoring the victim's condition as the rescue party proceeds, while making numerous navigational decisions and combating the effects of fatigue. However, many stressors affecting land searchers tend to be relatively subtle, requiring considerable sensitivity on the part of search management personnel for the prevention and alleviation of incident stress. For example:

The Sense of Isolation. Modern land search theory prescribes an emphasis on small groups of approximately 3 - 5 persons functioning either as a hasty team or a widely spaced grid team. As most searching is done in fairly remote or isolated forested areas — often in the middle of the night — team members may sometimes have only a tenuous voice contact with each other, at best. The feeling of isolation, even for experienced searchers, can sometimes become extreme. While searchers can usually adjust to the sense of feeling isolated, the presence of additional stressors, such as fatigue or a heightened concern for one's safety, may make successful coping especially difficult.

Spatial Orientation. Many emergency responders, such as fire fighters and cave rescue personnel, may encounter life-threatening situations where it is critical to "know where you are." In

wilderness search and rescue, where environments tend to be unfamiliar and relatively undifferentiated, and visibility may be poor (due to vegetation, terrain, weather, and/or darkness), requirements for accurate spatial orientation may pose a formidable challenge. Moreover, the mental resources required for maintaining continuous spatial orientation — or dead reckoning — may compete with the demanding perceptual task of searching for clues. Consequently, many search teams opt for maintaining only a very rough estimate of their location most of the time, with only an occasional updating of the team's coordinates.

Various psychological studies and observations have demonstrated that temporary states of spatial disorientation can be quite stressful. Moreover, as few skills are valued more by wilderness SAR responders than land navigation, the very possibility of becoming "turned around" looms as a threat to self-esteem as well as a source of derision from unsympathetic colleagues.

Extremes in Temperature. The human body has evolved to adapt rapidly to high temperature environments, normally taking about two weeks to make the transition from a moderate temperature to a hot one. Unfortunately, the advent of air conditioning in homes, offices, and automobiles has likely made few land searchers well prepared for extended exposure to heat, and a two-week response time is unlikely to be satisfactory in most incidents. Moreover, in dry-hot environments, such as deserts, searchers may have to contend with nighttime cold as well as daytime heat. Consequently, searchers may be required to take steps to prevent not only dehydration, cramps, and heat stroke, but also hypothermia.

Cold environments present both primary and secondary stressors for the land searcher. That is, cold temperature can be directly stressing, especially if the searcher is not adequately prepared, and it can have indirect effects as well. For example, searchers will have to wear more clothing and carry more equipment than usual, thereby consuming more energy. Frequently associated with cold environments are additional factors that inhibit movement, such as snow and ice, which may further deplete energy and lead to early fatigue. Also, concern for one's personal safety may be heightened during cold weather operations, such as preventing cold injuries, or undertaking hazardous maneuvers such as crossing frozen streams or lakes.

Finally, an indirect stressor often resulting from cold, wet weather is a heightened concern for the safety of the lost person. For example, in one Canadian search for a nine year old boy who became lost while heading for a swimming hole in his trunks and tank top, searchers nearly panicked when the temperature suddenly dropped and rain began to fall.

Death of the Victim. All emergency responders have to cope with the reality of their respective professions, which is simply that sometimes victims die. Ironically, the same emotion that drives responders to do their jobs well — that is, an empathic concern for the safety of others — also makes them vulnerable to critical incident stress when the victim fails to survive.

When a lost person is found dead — or especially if they die during rescue — searchers are just as inclined as other emergency personnel toward second-guessing or criticizing themselves regarding what they *could have* or *should have* done that would have saved the victim. Indeed, the opportunities for such self-criticism in search and rescue may be especially diverse. For example, it

is not unusual for searchers to be upset merely because the dead victim had been found in a location that was *in* or even *near* an area where they had previously searched. Searchers can irrationally assume responsibility for a victim's death even though they had been only one of a team of searchers, and even when there is no means of determining whether the victim had entered the area *after* completion of the search, or indeed whether he or she had still been alive at the *time* of their search.

The effects of isolation, inclement weather, and fatigue can lessen the searcher's ability to cope with exposure to a deceased victim. Frequently, it is standard operating procedure for the team that finds a dead subject to secure the area and remain with the body until police and/or forensic units arrive. This often results in a lengthy period in which exhausted, cold, and psychologically vulnerable searchers have to cope with the proximity of death. Unlike many other emergency workers, such as firefighters or emergency medical technicians, few land searchers acquire sufficient exposure to dead victim incidents to develop adequate coping mechanisms for such situations.

When the dead victim is a child, the possibilities for stress are increased dramatically. For example, in the search for the nine year old boy, mentioned above, two novice searchers discovered the boy's body on the eighth day of the incident. They were so emotionally upset that they could still not be debriefed on the following day. In another example, a team of six searchers found the body of a high school honor's student who had committed suicide. The searchers were coping adequately with the situation until a police officer arrived with the boy's parents. During the critical incident stress debriefing of these searchers, all of them reported being traumatized by the parents' response to seeing their dead son. They reported recurring visual and auditory imagery of the scene which disrupted their sleep and led to other symptoms of the CIS syndrome.

The Stress of Command. Stressors for the overhead team managing the search are present both during and after the search incident. When the search begins, information must be gathered and critical decisions must be made during high emotional arousal, as well as the presence of searchers anxious to get into the woods, the panicky expressions of the missing person's family and friends, and a multitude of additional pressures to "hurry up and find the lost subject." Once the teams are tasked and resources are in the field, the only communications link with them is the radio, which is quasi-reliable at the best of times, considering garbled communications, dead radio batteries, malfunctioning equipment, and fading signals. As new information is communicated to the command post, critical decisions must frequently be made under conditions of extremely high uncertainty.

Prolonged Incidents. Although many SAR incidents are resolved within a few hours, searches commonly last a full day or longer. Indeed, the sheer length of the land search incident can be a source of stress to search personnel at all levels, from command to field personnel. In addition to increasing the possibilities for fatigue, the prolonged search incident typically attracts the attention of the media. Indeed, few emergency responders are as likely to experience as much direct media contact as land searchers. Unfortunately, some media people, who would not feel qualified to

comment on the proper method to administer CPR or to rescue someone from a burning home, are nevertheless prepared to render opinions on the right way to conduct a search for a lost person. If the search does not appear to be going well — in the view of a reporter or news commentator — then searchers may have to contend with publically aired negative criticism *while the incident is still happening*. If the search ends in tragedy — particularly with the death of a child — searchers may then have to cope with the worst type of post mortem analysis, blaming SAR personnel for the outcome, and implying laxity in commitment, training, and even concern for the victim.

Negative media attention can be most stressful for search management personnel, that is, the people who organized the search and were most directly responsible for its outcome. Following the search for the nine year old boy, an expose-type documentary appeared on television which criticized search coordinators and local government emergency planners. The documentary suggested that incompetence, poor strategy, and inadequate training was the cause of the boy's death. A lengthy magazine article appearing at the same time was similarly critical of search organizers. Consequently, search management and administrative personnel had to contend with these additional stressors as well as those produced by the incident itself. It should come as no surprise that nearly everyone who had a major role in organizing the search subsequently resigned from search and rescue activities, and government emergency planners identified by the media have since quit their jobs or taken early retirement due to health reasons.

Preventing Critical Incident Stress

What follows are some suggestions for preventing or alleviating the effects of critical incident stress on land searchers:

- *Reduce Opportunities for Negative Imagery.* Many of the symptoms associated with critical incident stress, such as nightmares and flashbacks, pertain to recurring images experienced during the incident. While such images are most frequently visual, they can actually be obtained through any of the sensory modalities, including hearing, smell, and touch. For example, a firefighter suffering stress from a "bad call" can be plagued by recurring flashbacks of victims' screaming, the smell of acrid odors caused by the fire, and the touch of a dead victim's flesh. In wilderness search and rescue, it is good practice to minimize the number of people who will come into contact with a deceased subject. This may prove difficult when there is some time delay between discovery of a body and arrival of forensic units, where some SAR responders from nearby teams may accumulate and wish to observe the body out of curiosity. In such cases a visible boundary should be established — using colored flagging tape or similar material — some distance away from the subject. The body should be completely covered by a tarp or blanket as soon as possible. As well, searchers handling the body should always wear gloves, and they should protect themselves against any odors emanating from the body, no matter how slight or seemingly harmless (for example, a victim's cologne can be the source of recurring imagery). Talking among SAR responders should be kept to a minimum, and there should be no expressions of black

humor. Finally, during recovery of the body, the victim should be handled with the same care and respect as a live subject. For example, he should not be carried on a stretcher in positions that would be unnatural for someone who is alive. Again, unnatural postures of deceased subjects can be a source of recurring negative imagery after the recovery is completed.

- *Employ the Incident Command System.* Not only does ICS provide an effective management structure for finding the lost person in the best possible condition, it also does a great deal to prevent stress levels from becoming too high. For example, it prescribes the maintenance of a *manageable span of control* for members of the overhead team. That is, no one person involved in search management should have to supervise the activities of more than approximately 5 to 7 other individuals, no matter how complex the management structure becomes as the incident grows in size. ICS also recognizes the importance of *operational periods*, within which managers can normally be expected to function effectively before becoming fatigued. As well, a critical component of ICS is the importance of *consultation and discussion* among members of the overhead team regarding strategy and tactics for finding the lost person. Not only does this procedure usually lead to better decision-making, but it also tends to diffuse the possibilities for individual blame should decisions turn out to be less than optimal.

- *Describe the "Big Picture."* Once the incident is over, never allow SAR responders to leave the search site without a thorough operational debriefing, in which every tasking is explained in terms of its contribution to the overall incident objectives. This will allow individual searchers to put some degree of "closure" on the incident, rather than having to take the search home with them in order to "make sense of it." Encourage people to ask questions, and if the group is small enough, call on each person to express themselves. An important objective of an operational debriefing is to facilitate the return to normality that each responder will have to make when they leave the scene. Frequently, these simple steps will go far to prevent a full-blown stress reaction and reduce the number of responders who require additional help.

For searches that have the potential for inducing critical incident stress, such as when the victim dies during rescue, or a searcher is seriously injured, a stress defusing should be scheduled to take place several hours after demobilization, with responders informed of the time and place of the defusing before leaving the scene. A defusing is an informal and less structured version of a critical incident stress debriefing, taking about 30 minutes to an hour to conduct, and focussing on those individuals who were most directly affected by the incident. The goal of a defusing is to get search personnel "back to normal" by having them express their emotional reactions to the incident in a group context. A secondary goal is to assess the need for a formal CIS debriefing, and to identify those individuals who may be especially stressed out by the incident.

Conclusion

Searchers who are prepared for the stressors they are likely to encounter during the lost person incident, and are led by management personnel who are effectively in control of the search,

are in a good position to resist the debilitating effects of critical incident stress. Similarly, search managers who respect the manageable span of control, the necessity for defined operational periods, and other principles prescribed by the incident command system, are less likely to become CIS victims than is the old-fashioned (but still too common) "search boss" who runs the incident single-handedly until he collapses from exhaustion. The best time to deal with critical incident stress is before the search incident, through preplanning, preparation, and training, rather than after the search is over. Indeed, the most successful CIS debriefing is the one that doesn't need to happen.