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Subject: **SEARCH: A Simplified Self - Help Primer
for Outdoor Leaders**

Instructional Support

Version: 2.0

Technical Note

Contents: 4 Pages

05/96 _ Summer

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INTRODUCTION

"The best Search and Rescue event is the one that never happened."

Proper leadership and group organization can reduce the possibility of lost person incidents during wilderness travel. Unfortunately, lost persons events happen to even the most prepared parties. This article will not deal with leadership and preventive strategies, but acknowledges their role as a vital precursor to Search preplanning.

Search for the lost person is generally conducted by government agencies or large Search and Rescue (SAR) groups. In Canada, responsibility for SAR activities generally falls upon the Police, RCMP, Military and Provincial or National Parks' personnel depending upon where and how the incident occurred. Either of these agencies may act cooperatively with the others and may call upon the resources of volunteer SAR groups scattered across the country.

A most important point to remember is, if you believe that you truly have a lost person incident, immediately report the circumstances to the local authority responsible for SAR activities. Delays in initiating an appropriate response can lead to a poor or perhaps catastrophic outcome. The greater the delay before initiating proper search tactics, the more difficult it becomes to confine the area and the larger the area that must be searched.

The point of this paper is not to make the reader a trained searcher or search leader. It simply provides some basic information to use in the first minutes or hours before a proper SAR agency response is initiated. It also provides some basic points to remember when you are unable to access outside assistance for extended periods.

Little is written about the first minutes of a search from an outdoor leader's perspective. Most texts assume a large pool of manpower and resources. Even those texts that deal with self rescue scenarios often fall back on large group SAR strategies and tactics when attempting to provide information for small group outdoor leaders. This article will use organized SAR group models but adapt them for small group situations.

THE CRUCIALS (adopted from "Managing the Search Function") 5

1. **Search is an Emergency.** An appropriately timely (urgent) response is necessary because the subject may be injured and need protection from the environment. Furthermore, clues to the subject's location are destroyed by time & weather. An urgent response tends to lessen search difficulty.

2. **Search is a Classic Mystery.** Until the subject is found, you must use all the resources available to you to piece together the clues and events.

3. **Search for Clues, Not Subjects.** The lost subject is a clue generator. There are therefore

more clues than subjects. Detection of clues substantially reduces search difficulty by allowing searchers to focus more attention on specific areas where the subject is more likely to be located. Searchers must be "clue aware" as well as "subject aware".

4. Concentrate on Aspects That Are Important to Search Success. Avoid wasting energy and resources. Don't waste time on things that are not under the control of the Search Leader.

5. Know If The Subject Leaves The Search Area. Be on the lookout for clues that the subject has left the area. A "Bastard Search" should always be considered. This entails assessing if the subject could be outside the search area (ie. subject left group as a result of personality conflict and went home, to the Bar, etc.)

6. Grid Search Is a Last Resort. With small groups, success will be much better using other methods. Small groups may not have the basic manpower to grid search even a small area.

7. Know When to Say "When". The above six points are appropriate for all searches, but this final point is added for outdoor leaders. If several hours have passed with no results and you have not yet attempted to contact the local SAR authority, you are no longer working for the subject but against her/him. Realize when you are over your head. The points made in item 1 above emphasize that time is a vital element. If weather is poor and the subject is unfit and not prepared for the elements, you should not even let a single hour pass before making the initial call to the local SAR agency. Also consider that untrained searchers can destroy clues and evidence that may have been useful to an experienced searcher.

ELEMENTS OF A SEARCH

PREPLAN

In addition to the normal travel related information that is completed on a "route card", preplanning for the outdoor leader should include detailing who to contact in an emergency. A basic outline of procedures to follow in simple emergencies also should accompany the leader. Search should be included as one of those emergencies. In summer camp settings or with large organized group or commercial recreational activities, a preplan should ideally be more formalized to include information on the local environment and

resources available to you. A procedure for gathering information on the subject should be laid out (interviewing, questionnaires, planning & search data). Collect any relevant data on past searches / incidents in the area that may be helpful. Develop an action plan and procedures for determining priority of search, callout, recording data, setting up an incident base, stepping - up the search, additional support, accessing SAR agencies and when to suspend operations. Outline post incident activities that should take place, including critique. Have a means of using information collected to prevent future incidents.

FIRST NOTICE

Upon first receiving information of a missing person, you should ensure that the reporting person remains available to answer any further questions, not only for yourself but also for any future organized SAR response. If you are the person in charge, decide what priority or urgency your response should have.

Factors to consider include:

- subject profile including age, health, experience, number lost,
- weather profile including present conditions and forecast,
- profile of equipment carried by subject, and
- terrain profile, which should include any known or possible hazards on the route being followed.

This information will help you determine how rapidly you should act. It also should help you decide how soon to call the local SAR agency. If you have not already done so, designate a person as your incident recorder or scribe. Their function will be to record all information you receive as well as times of any significant events.

You should then proceed with defining the lost person. This includes a physical description including clothing, shoes, equipment and even habits. Begin to formulate where the missing person may be. What were the point last seen and the last known point? (Physical evidence can tell you that the subject was at a location even though they were not seen at that location.) What would their behavior be if they were lost?

STRATEGY

Search Strategy or Planning is nothing more than collecting information to define the scope of the problem and determining a course of action. The cardinal rule of search planning is, "*Never plan by yourself.*" Determine what resources are available to you. Establish a location for a "search base". This will become your meeting point and all personnel involved would report information to this location. (Be sure all watches are set to the correct time.)

Using any knowledgeable persons at your disposal, determine the various possible places the subject could be. Assign a likelihood that the subject is in any of the locations that were suggested. Break the terrain into small "search areas" that can be searched given your manpower. These areas should have natural boundaries if possible. Allocate your resources based on the likelihood of the subject being in each of the search areas. Remember that the subject may have left the search area, so plan to do a "Bastard Search."

Be sure searchers are fit, equipped, have recently eaten, and know how and when to report to the base. Establish a proper schedule for when persons must report in. This is particularly important if you do not have radio communications. Do not send out incompetent searchers. Team up inexperienced persons with knowledgeable and capable individuals.

TACTICS

Tactics are simply the methods and actions you will carry out to attempt to locate the subject. The first tactic that you may use is a "hasty" or "scratch" search. This team(s) is dispatched almost immediately to survey the areas of greatest likelihood. Typically, they will try to guess the route that the subject may have followed. They travel quickly, looking for clues, being careful not to disturb any evidence.

A perimeter search can be carried out by later teams who are assigned to trails, drainages, streams, ridges or high points surrounding the search area. In addition to searching for clues, the teams call out at intervals and listen for replies. They also look for evidence that the

subject has travelled beyond the perimeter of the search.

It may be beneficial to assign a lookout to a specific location if there is a terrain feature that allows a large area of terrain to be surveyed. Similarly if there is a trail, road, canyon, etc. through which a person would have to pass to exit the search area, this should be considered for a stationary team.

Examine any natural "track traps" such as sandy beaches, muddy areas, undisturbed areas on trails, snow, etc. for evidence of footprints. Be sure to leave these areas undisturbed so they can be checked again in the future. You may also try attraction methods by using smoke, flares, noise, etc. to notify the subject of the location of the search group.

If the above tactics fail to provide results, you must reevaluate your initial strategy. Assess the likelihood that the subject is in the areas you searched. Did you miss him/her? Where are they most likely to be now, given the passage of time? Redeploy your resources accordingly. In the backcountry, your initial search base may now become more of a base "camp" with the possibility of a prolonged stay. What about food and equipment for this longer search? Have you contacted the local SAR agency yet or is this the time? If nightfall is approaching, consider having very experienced and well equipped searchers continue the search at night.

A possible tactic that can be used with a larger party is the "open line" search in which a team of three to ten persons either follows a compass bearing or a terrain feature and sweeps a broad expanse of terrain. The distance between searchers can be more than 100 meters in more open terrain. This is a slower and more manpower intensive method that should be reserved for later stages in your search.

Most Search texts now begin discussions of deploying "closed line" searches or "grid" searches. Even if the manpower was available to deploy such tactics, this is usually a last resort even for organized SAR groups. An average trained grid search team of 53 people takes 3.5 hours to cover a square mile of terrain spaced 100 feet apart. Even with this, they still only

have a 50% probability of detecting the subject in non - open terrain. With small group numbers, your best bet is to continue searching likely areas with small teams. Continue periodic reevaluation of your previous strategy and allocation of resources.

EVACUATION

Once the subject is located, the problems are stabilizing their condition, followed by evacuation (both beyond the scope of this article).

SUSPENSION

In a truly remote backcountry situation, the thought of calling off a search without having found the subject is a sobering prospect. In making this kind of decision, you must balance off the safety of the rest of the party against continuing the search. If your party is well equipped and has food for a prolonged stay, you should consider sending a fast light party out to civilization at some point while the remainder of the party continues to search.

If you do call off the search, whether the subject is found or not, be sure you have a method for notifying everyone that this decision has been made. Be sure all the searchers have been accounted for before leaving the area.

CRITIQUE

Once the search is completed, the entire group involved should debrief the activity, paying particular attention to how to prevent another event of this sort and how to improve performance for any future events. Review what went well and what could have used improvement. Any recorded information can be reviewed at this time. If a preplan is in place for the group involved, suggestions for modification can be brought forward at this time.

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This article originally appeared in Mountain Safety, Search & Rescue - Selected Articles and is reprinted courtesy of Cyril Shokoples. Cyril is an internationally certified Mountain Guide and has been a member of the Alpine Club and Edmonton Section since 1975. He became a Senior member in 1979 and received the Silver Rope Award in 1988. He currently resides in Edmonton and is the proprietor of the firm Rescue Dynamics, which is involved in climbing, rescue and safety instruction, as well as mountain guiding. Further information on courses as well as additional copies of this and other technical notes in this series can be obtained directly from Rescue Dynamics. On the Internet, visit the Rescue Dynamics World Wide Web Site at - <http://www.compusmart.ab.ca/resqdyn/>
