

# Some Thoughts on Multiple-Subject Searches

Collected by David Lovelock

dsl@math.arizona.edu

from observations by

Paul Anderson, Aaron Dick, Dan O' Connor, Dave Perkins, Pete Roberts, and Rick Toman

February 25, 2011

When investigators start obtaining information about a missing subject, they should not overlook the possibility that there is more than one subject missing. If there is more than one, then the search is a Multiple-Subject Search.

A Multiple-Subject Search is usually more complicated than a single-subject search for a variety of reasons. One of these is because two different possibilities need to be considered—either the group has kept together or it has split into smaller units, each of which has gone its own way. For example, if two people are missing, they could remain together or split, which could happen if one has an accident and the other goes for help, or if one is deceased and the other tries to survive. Or, after a group realizes that it is lost, there might be a dispute as to what to do, leading to the group splitting. Consequently, during the investigation process, the investigator should try to determine the chances that a group might stay together or split.

Multiple-Subject Searches are not as uncommon as some people might think. Of 482 total SAR missions in Arizona, about 36% involved multiple subjects. Of those that involved multiple subjects, 86% were found together, and 14% were found at different locations. To put this another way, of the searches in Arizona about 64% were single-subject searches, 31% were multiple-subject searches where the subjects were found together, and 5% were multiple-subject searches where some subjects were found apart.<sup>1</sup>

While the search skills and tactics are unchanged from a single-subject search, the planning for a Multiple-Subject Search definitely changes. For example, a plan needs to be developed in the event that multiple subjects require medical assistance.

## Group Keeps Together

- A group may be easier to locate than a single subject because a group generates more clues and is a larger target.
- A single search urgency rating chart is completed based on the worst case situation for each person in the group.
- If one member is immobile, then the group is immobile.
- Generally speaking, groups don't get lost, only people get lost. So concentrate on profiling and searching for people, rather than groups. During the investigation, try to determine if there is a natural leader who is a dominant influence on the group's behavior. (If there is a leader available who was not on the hike—say, a scout leader—then they are important for the profiling in addition to friends, family, etc.) For example, a grandfather suffering from dementia is out for a stroll with his 9-year-old grandson when they get lost. Will the grandfather or the 9-year-old take the lead?
- A group may be composed of subjects falling into different subject profiles. For example, one might be a 30-year-old father hiking with his 6-year-old girl. Is the LPB characteristics for the group that of a hiker or a 6-year-old child? Is the distance traveled from the IPP for the group that of a hiker or a 6-year-old child?

---

<sup>1</sup>Thanks to Barry Scott of the Arizona Department of Emergency and Military Affairs for providing this data.

- To quote Ken Hill,<sup>2</sup> *“In my review of numerous multiple-subject searches in Nova Scotia, I found that the lost persons stayed together in all instances, and that they traveled about the same distance as comparable subjects lost alone.”*.
- How do the group members interact? To quote Ken Hill,<sup>2</sup> *“it is my strong impression, from interviewing scores of lost persons soon after rescue, that people lost with companions are much less scared and considerably more rational during their ordeal than are people lost by themselves.”*
- The possibility that a group may split should always be considered and investigated.

## Group Splits

- A group splitting may occur under two different circumstances.
  1. The subjects know nothing of the others' whereabouts. This would happen, for example, when looking for multiple bodies after a mid-air collision between two aircraft. So finding one may yield limited or no information of the others.
  2. The subjects know something of the others' whereabouts. This would happen, for example, if they were all together at the beginning of a hike, and elected to split. Each group would know something about the other group's location, plans, condition, etc. So finding one might give some indication as to where the others are, either because they tell the searchers or because finding one helps to identify high priority areas for the other.
- There have been incidents where a subject who was not lost became injured, so the companion left to get assistance, and then the companion got lost, giving rise to two missing in two different locations. In many cases the injured subject was located prior to the one that left for help.
- Definitive clues in opposite directions are tricky as they may indicate two or more went separate ways or they stayed together and did a lot of wandering.
- If the clues related to two individuals, say footprints, went in different directions, then two separate searches need to be planned and conducted. This will require significantly more resources.
- If a group splits, then one might be immobile and unresponsive and the other might be mobile and responsive.

## What To Do?

- Assume that the subjects are together and follow clues until there is clear indication that they split.
- If one person is found, then use the separation point as the hub for a new search—assuming there is evidence that the subjects were together at that stage—accounting for the distance already traveled, the time taken, and the routes followed. (This hub plays the role of a new IPP, although, when the subject is found, it is the “as-the-crow-flies” distance from the initial IPP to the subject that is recorded for statistical purposes.) Also all that has potentially occurred since the person was at the new IPP needs to be taken into account. This includes the time since leaving the new IPP, the direction of travel, the mental and physical condition of the subject, the subject's plans, etc. **Essentially this is a new search with an already well-developed subject profile.**

---

<sup>2</sup>[www.husky1.stmarys.ca/~khill/psychologyoflost.pdf](http://www.husky1.stmarys.ca/~khill/psychologyoflost.pdf) accessed on February 20, 2011.