SARA Callout Review

A brief overview of _some_ of our recent calls

October 1, 2009
Exposure victim Espiritu Canyon
A couple had car trouble on a four wheel drive road in Espiritu Canyon, After a few days one companion walked out to Reddington Road to summon help. He was transported to the hospital via RMFD, meanwhile his female companion had wandered away from the vehicle and collapsed in a drainage. Initial teams located the subject who was confused and disoriented. A short haul was performed with DPS air rescue and the subject was flown to the hospital.

October 8, 2009
An elderly male patient was reported to be having difficulty breating below the box spring junction on box camp trail. When SARA members arrived on scene he was assessed and placed on oxygen. DPS was available and ready to do a shorthaul so the patient was flown out to an awaiting ambulance.

October 12, 2009
Two hikers let their car at the Butterfly Trail Trailhed with the intent of hiking to novio spring then downstream to Alder Canyon, which they would follow to the Crystal Spring trail, come out Butterfly Trail and return to their vehicle. Unfortunatly they left an outdated note in their windshield stating they would return from a backpacking trip in Sabino Canyon on the 8th of October, four days prior to the callout. Even though it was unlikely the hikes would have parked in this parking area for the hike their note described, it was desirable to make a welfare check on the couple. Teams encountered the couple just above the Crystal Springs junction and everyone hiked out.

To read about all of our calls this month please visit the SARCI newsletter at http:sarci.org/newsletter

Training 02
Recap of the monthly training and a look to next month.

Search Theory 03

Part 5 of a series
from David Lovelock

This months training

November 7, 2009
Search and Track Training
SARA Craycroft house, 0800-1300

This training will focus on the theory and decision processes used on small and large scale searches. This training will be primarily classroom based but there may be some hands on work, please have your rescue pack available.

The topics to be covered:

- Phases of the search, what differentiates a large scale search from a typical search.
- Setting search boundries
- Methods for reporting probability of detection
- Use of CASIE
- Assisting in management of a large scale search operation
- Tracking methods

The material covered in this training will build on some of the concepts found in Dr. David Lovelock's articles from previous monthly reviews. Please visit the archive at sarci.org/newsletters under SARA monthly review to read these before class. Below is the first of two articles for this months newsletter from Dr. David Lovelock.

What are POD and CPOD?

POD stands for Probability of Detection. It is the probability that the resource finds the subject in its segment, assuming the subject is there. It is a measure of the efficiency of the resource. It is a number between 0% and 100%. Thus, a POD of 40% for a segment means that the resource that searched that segment had a 40% chance of finding the subject, assuming the subject is in that segment.

It is the PODs that are used to update POAs.

POD has to be estimated. Usually novice resources (and some not so novice resources) overestimate their PODs. Overestimating a POD for a segment leads to artificially high ROW, which may cause the search to be suspended too early. It also skews the search away from that segment.

CPOD stands for Cumulative Probability of Detection. Each segment has its own CPOD. It is a measure of how well a segment has been searched by multiple resources. This number always increases but never exceeds 100%.

For example, consider the case when two resources search the same segment, one with a POD of 60% and the other with a POD of 50%. The CPOD is the combined effect of these two searches. However, to get the CPOD, we cannot add the individuals PODs (because that gives 110%, which is over 100%). Using the correct formula we find the CPOD of 80%.

Having a high CPOD is worthless if the subject is moving.

Search Techniques part 6

Author: David Lovelock

What is ROW?

ROW, which stands for the Rest of the World, was introduced to the SAR community by the late John Bownds, a SARA member.

The term ROW is used in two different ways.

1. To mean the physical region outside the search area. This is much more subtle than it sounds. Unless specifically included in the original search area when the consensus is taken, regions such as beneath soil, beneath snow, or beneath water, are not in the search area, but are in the ROW. Thus, the search area is more 2-dimensional than 3-dimensional. For example, if there is a lake within the search area, then, unless we plan to search beneath its surface, only the surface is in the search area, while beneath it is in the ROW. In the same way, if an item, such as a cave, mine-shaft, or dwelling, is discovered in a search segment that was unknown at the time of the initial consensus, then that item is in the ROW. Had the consensus team known of this item, then it would have been given its own segment and its own initial POA. To include this item in the search area at this stage, the search area must be expanded.

2. To mean the likelihood that the subject is outside the search area. ROW is the POA of the region outside the search area. It is the probability that the subject is out of the search area, taking into account all searches which have taken place inside the search area.

Each time a segment is searched without success, the ROW increases. When this number gets very high, it may be time to expand the search area or suspend the search.

The ROW is used in a variety of ways.

- If the ROW exceeds 50% then this means that there is more chance that the subject is out of the search area than in it. Consideration should be given to expanding the search area. If the search area is expanded, then the POAs for the new segments are taken from the ROW.
- If the ROW is very high, say 95%, and the search area cannot be expanded, perhaps because of impassable barriers on the boundary, then consideration should be given to suspending the search.

This article is part of a series that will continue in upcoming newsletters. David has been involved with SARA since 1979. With the late John Bownds, a SARA member, he designed the DOS program, CASIE, which was used world wide in large-scale SAR incidents. In 2006 he released the windows version of CASIE, which ultimately resulted in him receiving the National Park Service Search and Rescue Award (2006), the Pima County Sheriff's Department Citizen's Medal (2007), and the NASAR Hal Foss Award (2008).

Events for November

Nov. 1st OEC refresher

Nov 7th: Search and Track training

Nov 14th: Basic 3a

Nov 21st-22nd: Basic 3b

Dec. 4th: SARA general meeting

Dec. 5th: Medical skills training