



# SARA Monthly Update: September 2009

## SARA Callout Review

A brief overview of some of our recent calls

Sunday August 2, 2009

Two hikers became lost on their hike down Mt Hopkins in the Santa Ritas. SARA teams were requested to assist Sana Cruz teams in searching for the hikers. Teams got into the field around 9 o'clock and SARA members covered the Super trail and Baldy trail. As teams were approaching the junction of Vault Mine trail and the Agua Caliente trail Survey 1, a fixed-wing, single-engine aircraft operated by the Sheriff's Department, spotted the pair of lost hikers off trail toward Mt Hopkins. Survey was able to direct SARA teams into the subjects location and all everyone walked out around 4 am.



A map showing the how the search played out is below. This search was a great interagency cooperation between PCSO, SCSO, SARA,



### Training

02

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



### Search Theory

03

Part 5 of a series  
from David Lovelock

# Upcoming events

## Basic Rock Training Recap

On August 8<sup>th</sup> a number of SARA members and candidates took an off trail journey up Soldier Canyon at the base of Mt. Lemmon. Many participants found the terrain more difficult to move through with a full rescue pack on, not to mention a Stokes basket. Thanks to all who participated and Jim Holmes and Jane Larkindale for instructing an excellent training.

August 29, 2009

Avenue Coffee at 2502 N Campbell Ave, just north of Grant and Campbell will be having a Grand Opening. They will be giving away free coffee, smoothies, and pastries all day. All tips and donations will go to SARA. Come stop by and say hello, [www.avenuecoffee.com](http://www.avenuecoffee.com)

September training: by Cathy Wasmann,  
[cwasmann@cals.arizona.edu](mailto:cwasmann@cals.arizona.edu)

Personal Rope Skills

Date: 05 September 2009

Rendezvous: SARA House, 08:00

**Instructors:** Cathy Wasmann (cell 784-1784)

**Target Audience:** All members and candidates who want to improve their personal rope skills.

**Topics and What to Bring:** This training will focus on personal safety at edges and on low angle slopes. Participants will be introduced to rappelling, ascending (self belay), and changeovers.

This is a hands-on training. Please bring a helmet, gloves, harness (optional, extra harnesses will be available), and two Purcell Prusiks. If you need a set of personal Purcells, please bring 10m (33ft) of 6-7mm nylon accessory cord. The tying of a Purcell Prusik will be taught and participants will use their Purcells. If you have locking carabineers and mechanical ascenders, bring them. If you wish to tie a set of Purcells beforehand check out this site [http://www.pbases.com/phil\\_box/purcell\\_tie\\_in](http://www.pbases.com/phil_box/purcell_tie_in), or check out the Freedom of the Hills, available in the SARA library.

September 6 2009

SARA Candidate Hike

This year, the candidate hike will be held on Sunday Sept 6th. We will have a very large group of applicants, so any help would be appreciated! We will meet at 106 at 7:30 (candidates will be told 8am), and drive up to Prison Camp. The hike will

go over towards Sycamore reservoir as it has the past few years. I would expect the hike to be complete by about 1pm. Contact Jane Larkindale with any questions.

September 12, 2009

OEC Corner

Your first chance to attend an OEC refresher this year will be on Saturday, September 12th beginning at 7a.m. for instructors, and 8 a.m. for the students. The location will be the SARA Craycroft house.

Cycle "B" refresher is now available on the NSP website ([www.nsp.org](http://www.nsp.org)). National Ski Patrol has made several changes in how they operate the OEC program. We are in the process of drafting a letter to be mailed out to each member who holds an OEC card outlining the changes and how they affect you as an OEC member. Contact John Gorski if you have any questions.

Remember that you need :

- 1) Check payable to SARA for \$20.00 refresher fee
- 2) Records must show a current CPR and OEC certifications
- 3) COMPLETED Refresher Guide
- 4) COMPLETED Refresher Completion

September 18-20, 2009

This year state SAR conference will take place in Heber, AZ. Information can be found on the new Arizona state SAR website, [saraz.org](http://saraz.org), under conferences. If you are interested in attending please contact Brian Janezic or Deputy Eric Johnson.

October 3, 2009

Three events will take place on October 3<sup>rd</sup>.

SARA will once again be providing medical support for the Tour of the White Mountains in Show Low, Arizona; presented by Epic Rides. Information on the event is at [www.epicrides.com](http://www.epicrides.com)

MRA technical rock and search reaccreditation, SARA needs to recertify in technical rock rescue and search this year to keep our MRA accreditation. Contact Brian Duffy of Scott Clemans for information.

# Search Techniques part 5

Author: David Lovelock

## What is POA?

POA stands for Probability Of Area. In a large-scale search, the search area is segmented. During the search, each segment has its own POA, **the probability that the subject is in that segment**. It is a number between 0% and 100%. Thus, a POA of 50% for Segment 1 means that we think there is a 50% chance that the subject is in Segment 1. The sum of the POAs and the probability that the subject is outside the search area (the ROW) must sum to 100%, because the subject must be either in or out of the search area.

POAs come in two varieties.

- **Initial POAs.** These are the numbers that are assigned to each segment by the Consensus process.
- **Updated (or “Shifted”) POAs.** After a segment has been searched unsuccessfully (that is, the subject has not been found), the probability that the subject is in that segment decreases, while the probability that the subject is in one of the other segments or out of the search area increases. These new POAs are the Updated POAs.

For example, suppose, for the purposes of illustration, that we have two search segments and that the Consensus method assigned initial probabilities as follows. Note they sum to 100%.

Segment	POA
ROW	20%
1	50%
2	30%

Thus, the initial POA for Segment 1 is 50%, and this is the hottest area. We also think there is a 20% chance the subject is out of the search area.

Let’s assume we have only one resource. Based on the initial POAs, we decide to put this resource in Segment 1 at the start of Operational Period 1. At the end of the operational period, the resource returns and reports that they have not found the subject.

Thus, the POA for Segment 1 will drop, and the other two will rise. If the resource does an outstanding job, these numbers change dramatically. If not, the change is less dramatic. Knowing how efficient the resource is allows us to update the POAs, which now might be

Segment	POA
ROW	30%
1	25%
2	45%

Note they still sum to 100%. So the chances of the subject being in Segment 1 has dropped from 50% to 25%, while the other two have risen. The new hot area is Segment 2. Thus, at the beginning of Operational Period 2 we would concentrate on Segment 2.

Of course, in a real search there would be many more segments and additional resources, which complicates the situation. That is where Win C.A.S.I.E. III comes in. Win C.A.S.I.E. III will be discussed in a subsequent article.

September 5<sup>th</sup>: Monthly Training

September 6<sup>th</sup>: SARA candidate hike

September 12<sup>th</sup>: OEC refreshers

September 18-20: State SAR  
conference

October 3<sup>rd</sup>: Tour of the White  
Mountains

October 3<sup>rd</sup>: MRA reaccreditation

October 31<sup>st</sup>: Vertical Mile