

# Santa Clara County Sheriff's Search and Rescue

## ACADEMY REFERENCE LIST v5.5

This is not a comprehensive list of items to purchase, but should assist you in determining what we'd like you to have as far as equipment and uniform purchases. If you have any questions about any of this, feel free to post a question to the SAR Academy Yahoo group, and someone can provide an answer for you.

[http://health.groups.yahoo.com/group/SCCSSAR\\_ACADEMY/](http://health.groups.yahoo.com/group/SCCSSAR_ACADEMY/)

Unless specified otherwise, all of the following items are required as follows:

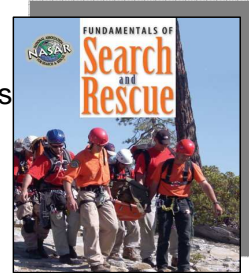
- (P) Pre-Academy
- (A) Academy Student
- (T) Academy Graduate- Team Member
- (O) Optional

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## Educational Material

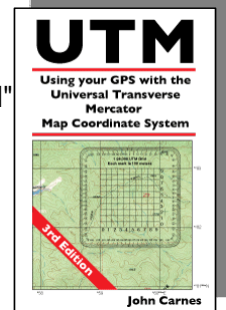
**(P) "The Fundamentals of Search and Rescue"**

(Jones and Bartlett, ISBN: 978-0763748074), The "classroom text", we use during the academy. It is available for purchase online from various book sellers for approximately \$35.60-\$37.95. Be sure you get the most current version (2005). You will need this book by the first academy classroom session. [www.amazon.com/](http://www.amazon.com/) or [www.nasar.org/](http://www.nasar.org/)



**(A) "Using Your GPS with the Universal Transverse Mercator Map Coordinate System"**

A 45 page instruction manual full of information on the Universal Transverse Mercator (UTM) Map Coordinate System and a "pocket sized" **UTM Grid Overlay suitable for use with 1:24,000 scale**, 7.5 minute USGS topographic maps. Your Cost: \$7.95. [www.maptools.com/](http://www.maptools.com/)

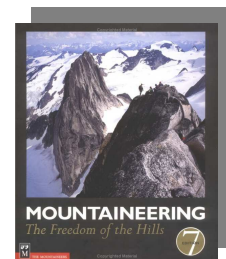


## Optional

**(O) Mountaineering: The Freedom of the Hills (Hardcover)**

(The Mountaineers, ISBN: 0-89886-828-9). The "climber's bible", from choosing equipment to how to tie a particular knot; from basic rappelling technique to planning an expedition. Your Cost: \$29.95.

[www.amazon.com/](http://www.amazon.com/)



## Uniform Components

### **(P) Uniform Shirt and (T) Patches:**

The team uniform shirt is an orange, long-sleeved 100% cotton button-up shirt (usually made by Red Kap). These are available at *Summit Uniforms*, *Workingman's Emporium*, *Work World*, and other locations. The name tapes are white text on navy blue background, with your first initial and last name on them. These can be ordered through Summit Uniforms, or through various online retailers. The name tape is sewn on over the right pocket. The "Sheriff's Department" patches and "Search and Rescue" rockers aren't purchased until after you complete the academy. If you purchase the shirt and patches from Summit Uniforms, they may sew the patches on for you at no cost. The shirt costs approximately \$20.00, and the patches are approximately \$15.00.  
[www.summituniforms.com/](http://www.summituniforms.com/)



### **(P) BDU Pants:**

Acceptable uniform pants are either 5.11 Tactical Pants or standard BDU pants (one maker: Propper) in khaki/tan. These are available at Summit Uniforms, online vendors, and may be found at surplus stores. The 5.11 pants cost approximately \$50/pair; standard BDU pants are slightly less.  
[www.summituniforms.com/](http://www.summituniforms.com/) or [www.Galls.com/](http://www.Galls.com/)



### **(P) Boots:**

Sturdy boots are essential for Search and Rescue work; individual choice is what counts the most. Your boots should be comfortable, provide ample ankle protection, a metal or composite shank, and provide good traction with a lug sole. Trail runners or other light-weight shoes are acceptable for meetings, but not for searches or outdoor training exercises. All academy meetings and training exercises require closed-toe shoes.  
[www.summituniforms.com/](http://www.summituniforms.com/) or [www.rei.com/](http://www.rei.com/)

### **(A) Gaiters:**

Gaiters will keep debris out of your boots and help keep your feet warm. If possible, a pair that has some sort of ventilation for warm-weather use will help keep your feet dry, too. A good pair will cost somewhere between \$35.00 and \$70.00. You'll want these before your first "field exercise" in the academy.  
[www.outdoorresearch.com/site/index.html](http://www.outdoorresearch.com/site/index.html) or [www.rei.com/](http://www.rei.com/)



### **(T) Jacket:**

(seasonal) Mountain Hardware *Typhoon Jacket* GORE-TEX Paclite, lightweight shell. The jacket is fully waterproof and extremely breathable. Your Cost: \$199.00.  
[www.mountainhardwear.com](http://www.mountainhardwear.com)



## Optional

### (O) Base Layer:

Black or Orange. 100% cotton short sleeve. Your Cost: \$13.00.

Black or Orange. 100% cotton long sleeve. Your Cost: \$16.00.

Black or Orange. Synthetic short sleeve. Your Cost: \$24.00.

Black Only. Synthetic long sleeve. Your Cost: \$26.00.

Minimum order 12 (Can be mixed with Hooded Sweatshirts).

[www.summituniforms.com/](http://www.summituniforms.com/)



### (O) Pullover Hooded Sweatshirt:

Black or Orange. 50/50 Cotton/Poly pullover Hooded sweatshirt. Your Cost: \$35.00.

Minimum order 12 (can be mixed with Base Layer).

[www.summituniforms.com/](http://www.summituniforms.com/) or [www.teamgolden@ftcnet.net](mailto:www.teamgolden@ftcnet.net)

### (O) Bomber Jacket

Majestic Class 3 Hi Vis Transformer 8-in-1 Bomber Jacket Fleece Lined Waterproof Winter Orange. This Jacket also, includes a removable Class 3 Liner to be worn in Spring/Fall. The sleeves on both the shell and the liner are removable. This is probably one of the most functional warm weatherproof Class 3 garments you'll wear. Available in sizes med-6X. Patches are Required. Your Cost: \$55.00. (Extra \$12.00 for patches and labor to sew them on).

[www.themanstoreonline.com/Majestic-75-1382-Hi-Vis-Transformer-p/75-1382.htm](http://www.themanstoreonline.com/Majestic-75-1382-Hi-Vis-Transformer-p/75-1382.htm) or [www.teamgolden@ftcnet.net](mailto:www.teamgolden@ftcnet.net)



### (O) Boonie Hat:

100% cotton Rip-Stop Khaki Boonie Hat. The Khaki military floppy hat as some call it, is great to keep the sun off the ears, face and back of the neck. Your Cost: \$10.00/ [www.armysurplusworld.com/](http://www.armysurplusworld.com/) or [www.amazon.com](http://www.amazon.com) or any surplus store.



### (O) Knitted Cap:

Green 3" folding cuff knit cap. 100% Acrylic. Embroidered with "Santa Clara County Search and Rescue". Your Cost: \$20.00. Wool Cap 80% Wool / 20% poly. Your Cost: 25.00. [www.imaginationembroidery.com/](http://www.imaginationembroidery.com/)



### (O) Rainwear:

(seasonal) Lightweight, heavy-duty, two-piece rain suit. The fabric is waterproof, breathable nylon shell and a tricot mesh lining. All seams are sealed with heat welded tape. #610 Raintec Rain Gear.

Your Cost: \$137.00. [www.lifesavingsystems.com/](http://www.lifesavingsystems.com/)



### (O) Wind Breaker:

100% nylon Light-weight Jacket. Sheriff's Office logo on back. Minimum Order 12. Your Cost: \$40.00

[www.summituniforms.com](http://www.summituniforms.com)






## Search and Rescue Gear

### **(A) Backpack:**

A backpack of approximately 2000 cubic inches is required to carry all of your gear; the exact size will depend on the amount of gear you carry with you. Avoid external frame packs, which are too bulky for SAR work. Packs with internal frames, stays or frame sheets work best. Some prefer a large daypack, others a waist pack/daypack combination. [www.rei.com/](http://www.rei.com/) or [www.searchgear.com/](http://www.searchgear.com/)

### **(A) Compass:**

A Silva Ranger is one good example. Features you'll want include:

-  Sighting mirror and notch on top lid for taking accurate bearings
-  Clear base for orienting or marking headings
-  Rotating bezel



You should plan on spending between \$50.00 and \$75.00 for a quality compass. You'll want to have the compass before the "Navigation" lecture at the academy. Label it with your name. (If you already own a compass you are comfortable with, please check to make sure it is acceptable for use on the team.)

[www.rei.com/](http://www.rei.com/) or [www.silvacompass.com/](http://www.silvacompass.com/)

### **(T) Flagging tape:**

Carry 1 roll with you. Color is your preference. Biodegradable varieties are available. The cost is \$1.80 to \$2.00.

Most hardware stores have a variety of colors.

[http://www.gemplers.com/list.aspx?listNo=flagging-tape&s\\_kwcid=flagging%20tape|961735945](http://www.gemplers.com/list.aspx?listNo=flagging-tape&s_kwcid=flagging%20tape|961735945)



### **(P) Flashlight/Headlamp:**

The main choice seems to be between LED's and traditional incandescent bulbs. Traditional bulbs (especially high-end ones) give better light for searching, but use much more battery power. LED's provide a less "penetrating" light, but a set of batteries can last much longer. Consider looking for a light that takes AA batteries, the same as the team radios and most GPS units. Make sure you have a spare bulb and batteries or a second flashlight. You'll want these before your "Mock Search" at the end of the academy. Petzl *Duo* is used more often than not for SAR.

Cost ranges from \$20.00 to \$200.00.

<http://en.petzl.com/petzl/Accueil> or [www.rei.com/](http://www.rei.com/)



### **(A) Helmet:**

The approved team helmet is the Petzl Ecrin-Roc climbing helmet in **red**. Typically costs \$94.95. Some prior academies have been able to get a "**group discount**" from online stores. You'll need this by your "Rescue Systems" field exercise. [www.rei.com/](http://www.rei.com/) or [www.searchgear.com](http://www.searchgear.com/) or <http://en.petzl.com/petzl/Accueil>



**(A) Helmet Labeling:**

Label the helmet with 'Yellow with Black Lettering' Crescents (rockers), that say "**Search and Rescue**". They are available from CMC Rescue online: [www.cmcrescue.com/product.php?dept\\_id=3021](http://www.cmcrescue.com/product.php?dept_id=3021). **(Group order is advised)**. \*\*\*You will need to follow the "Helmet Labeling" PowerPoint to order your Ocean Numbers and Name for your helmet.



**(A) Knife/Multi-tool:**

Infrequently used, but invaluable. A sturdy, comfortable knife or multi-tool is required; large, fixed-blade hunting-style knives are not desirable. Cost will range from \$55.00 to \$120.00.

[www.leatherman.com/](http://www.leatherman.com/)



**(A) Locking Carabiners:**

You'll want two (2) of them. Aluminum is lighter, but has a lighter load capacity. Steel is stronger, but heavier. Look for smooth operation, usually in a "D" or "Asymmetrical D" shape, with a locking gate. Plan on spending around \$20.00 each for quality carabiners. You'll want these before your "Rescue Systems" field exercise in the academy; label them with your name.

[www.rei.com/](http://www.rei.com/) or any company that supplies climbing equipment.



**(A) Prusiks:**

You'll need two (2) prusiks that are used with carabiners for securing yourself to 1/2" rescue lines. They are special "loops" that you will be taught how to tie at the "Rescue Systems" lecture. You must purchase one (1) 67" length of 8mm "accessory cord", and one (1) 55" length of 8mm "accessory cord". This cord can be found at REI and other outdoor/surplus retailers. You'll want your 8mm "accessory cord" before the "Rescue Systems" academy lecture. [www.rei.com/](http://www.rei.com/)



**(A) Tubular Webbing:**

You'll want 1 inch width tubular webbing; in several different colors if possible (trade with your academy mates?). You'll need enough to construct a chest harness and a pelvic harness on yourself, so the amount of webbing you will need will vary. Webbing can be purchased at sporting goods stores like REI, or at some surplus stores. Webbing typically costs 35 cents per foot or so. Figure on approximately 20 feet of webbing for each of your chest and pelvic harnesses. Consider borrowing someone else's webbing and determining how much you'll need before you purchase it. Black webbing is difficult to mark with a black Sharpie, and difficult to "follow" when tying around a black nylon belt – consider another color. You'll want these before your "Rescue Systems" lecture in the academy. Mark the ends with your name, and the date the webbing was placed "in service". . [www.rei.com/](http://www.rei.com/)



## Miscellaneous Items

The following items should be on your person or readily accessible.

**(O) Bandana:**

At least one; many uses.



**(T) CPR Pocket Mask:**

As used when you took your CPR class.

<http://www.redcross.org/>



**(O) Ear Plugs:**

Foam types work well; used when operating in proximity to helicopters



**(T) Gloves:**

Durable hand protection is required. Leather or similar material recommended.

<http://www.cmcrecue.com/>



**(T) Exam Gloves:**

These can be either latex or nitrile. Nitrile preferred due to latex allergies.



**(T) Fleece gloves:**

(seasonal) keeps fingers warm/nimble.

[www.rei.com/](http://www.rei.com/) or [www.thenorthface.com/](http://www.thenorthface.com/) or

[www.blackdiamondequipment.com/](http://www.blackdiamondequipment.com/) or [www.outdoorresearch.com/](http://www.outdoorresearch.com/)



**(T) Clear Safety Glasses / Goggles:**

Required when operating in proximity to helicopters and while working off-trail.

[www.searchgear.com/](http://www.searchgear.com/)



**(O) Marking pen:**

A black ink, fine point felt-tip marker such as a *Sharpie*®. This works well for marking flagging tape and for marking your gear.



**(O) Measuring device:** A small retractable tape measure of at least 3' length allows accurate measurements of evidence, and, if a locking variety, may be used as a tracking device.



**(O) Scissors:**

EMT-type shears.

[www.Galls.com/](http://www.Galls.com/)



**(P) Sunglasses:**

Either extremely rugged or extremely affordable is recommended.

[www.smithoptics.com/](http://www.smithoptics.com/)



**(O) Tracking Stick:**

(specialized) Used for Man-tracking.

[www.bear-tracker.com/](http://www.bear-tracker.com/) or [www.searchgear.com/](http://www.searchgear.com/)



**(O) Watch:**

Digital or analog is a personal preference. The only requirement, is that you are able to tell seconds. Either extremely rugged or extremely affordable is recommended.

[www.rei.com/](http://www.rei.com/)



**(T) Rescue Whistle:**

Plastic, "pea-free" styles are preferred over metal, "referee-style" whistles.

[www.searchgear.com/](http://www.searchgear.com/)



**(T) Writing Materials:**

A pen or pencil and a small notebook are essential for taking notes during search briefings, or for noting items of significance during a search. Get into the habit of carrying them at all times.



## Outdoor Equipment

### **(T) GPS Receiver:**

You will need to purchase to purchase your own, consider a *Garmin* unit. Most of the privately-owned GPS units on the team are *Garmin*, If compatible, the overhead team can download data your GPS has collected via the teams *Garmin* computer cable. The recommended GPS unit is the *Garmin 60 CSX*. Your Cost: \$219.95. If you do not buy a Garmin, you will have to purchase the USB cord to connect to your computer. This is required in order for Overhead to download your tracks after a search.

[www.garmin.com/](http://www.garmin.com/) or [www.gpsciv.com/](http://www.gpsciv.com/) or [www.amazon.com/](http://www.amazon.com/)



### **(A) Personal First Aid Kit:**

The material in this kit is intended for your personal use. Personal preference will dictate specific medications, etc. At a minimum, your kit should include

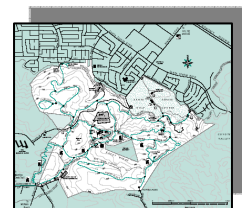
- + pain reliever/fever reducer (2 doses)
- + antacid tablets (2 doses)
- + antihistamine (e.g. Benadryl) (1 dose)
- + antiseptic cleaning pads (2)
- + antiseptic ointment (1 tube/envelope)
- + adhesive bandages, various sizes (6)
- + cotton swabs, non-sterile (2)
- + moleskin
- + splinter forceps or tweezers (1)
- + trauma pad (1)
- + insect repellent
- + sunscreen
- + lip balm
- + toilet paper (10' or more)
- + personal medications



### **(A) Set of County Park Maps:**

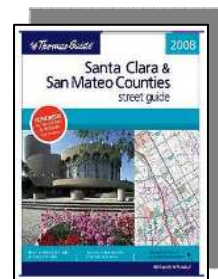
Most of our outdoor training sessions are held in the County Parks; and some searches are also, in our county parks. The maps are free at each park, available online at the County Parks website

[www.parkhere.org/](http://www.parkhere.org/) or a complete set may be obtained by going to the Parks and Recreation Office at 298 Garden Hill Dr, Los Gatos, CA. (408) 355-2200. Consider picking up enough for your entire academy- **communicate!**



### **(A) Thomas Brothers Map Book:**

Not strictly “required”, but the most universally available map book for this area. In addition, callouts will usually indicate the Thomas Brothers map page of the incident. At a minimum, you’ll want Santa Clara County. Make sure to get the map book that contains the rural/park areas we operate in (FYI avoid “Metro” versions). You’ll probably want to have this before your first “field exercise” in the academy. These maps are available at most book retailers and also on-line. Cost ranges from \$19.95 to \$29.95. [www.thomas.com/](http://www.thomas.com/)



**(O) Map Case**

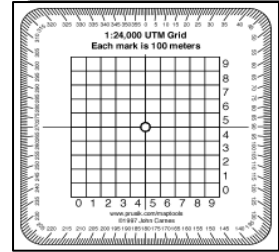
Not required. Very handy, particularly in wet weather. A heavy-duty zipper top plastic bag may substitute. Cost \$18.00.

[www.rei.com/](http://www.rei.com/)



**(O) MapTools 1:24,000 UTM Grid Overlay:**

This easy-to-use tool was developed to facilitate using UTM (Universal Transverse Mercator) coordinates on a standard 1:24,000 USGS topographical map. Don't worry; that sentence will make a lot more sense after you've completed the "Navigation" lecture during the academy! Not coincidentally, that's when you'll want to have this device. **This device costs about \$3.00, comes with an instructional booklet** (see text books), and is sold online. Consider making a group order – the seller of these devices is a local teacher/businessman and very accommodating. [www.maptools.com/](http://www.maptools.com/)



**(T) Survival / Improvisation Kit:**

The intent of this kit is to ensure you are self-sufficient for up to 24 hours. Personal preference plays into the contents of this kit to a great extent. At a minimum, consider:

- duct tape (10-15 feet)
- large leaf bags (3)
- matches in waterproof container (8)
- cash (~\$20 in small bills or change)
- safety pins, large (2)
- space blanket (1)
- shelter material (8' X 10') plastic or coated nylon
- Hand warmers (2)
- wire ties
- nylon cord (50' of 550 cord or "parachute cord")
- zipper top plastic bags (4 of various sizes)
- non-perishable, no cooking required food (24 hour supply)(high carbohydrate)
- water purification tablets
- chemical/electric/glow light sticks (2)



**(T) Signal Mirror:**

The important feature is a sighting port: some versions have instructions printed on the back of the mirror, which can be helpful. Sizes vary, look for one made of unbreakable material. (Compass sighting mirror is acceptable). [www.REI.com/](http://www.REI.com/)



**(P) Water Supply:**

The main choice seems to be between hydration pack setups and rigid-walled bottles (e.g., Nalgene). Hydration packs require regular maintenance but are more convenient to drink from: Bottles are easier to fill but not as easy to drink from. You will want to carry at least 2 liters of water with you at all times.

Grocery store water bottles can be carried, but **not** as the sole water supply, as they are prone to bursting.

Cost of Nalgene is \$8.50. Cost of hydration packs \$35.00 to \$100.00+.



## Retail and online stores plus other helpful information:

### **Brigade Quartermasters:**

Military and outdoor gear, including BDU and 5.11. pants.  
online store [www.actiongear.com/](http://www.actiongear.com/)



### **CMC Rescue, Inc.:**

Provides searchers with specialized equipment to do the job .  
They manufacture, distribute and provide training.  
(800) 235-8951 [www.cmcrescue.com/](http://www.cmcrescue.com/)



### **Gall's:**

Police/fire/medical supplies, including 5.11 pants.  
(800) 477-7766 Online/catalog store [www.galls.com/](http://www.galls.com/)



### **Imagination Embroidery**

5877 Winfield Blvd.  
San Jose, CA 95123 Screen shot 2011-07-19 at 7.12.13 PM  
(408) 578-8877 [www.imaginationembroidery.com/](http://www.imaginationembroidery.com/)



### **MapTools:**

MapTools provides GPS users with the tools and knowledge to fully utilize geographic coordinates.  
MapTools produces grids, corner rulers, roamers, and rulers to assist with plotting or measuring positions on many different scales of maps.  
(650) 529-9410 [www.maptools.com/](http://www.maptools.com/)



### **Mel Cotton's Sporting Goods:**

1266 W. San Carlos St., San Jose, CA  
(east of Race St. on San Carlos St.) Almost all of the  
equipment is available here; carabiners, 8mm accessory cord,  
webbing, and other climbing gear.  
(408) 287-5994 [www.melcottons.com/](http://www.melcottons.com/)



### **Mountain View Surplus:**

2405 S. Bascom Ave., Campbell, CA  
(south of Campbell Ave on Bascom, across  
from the Pruneyard.)

Outdoor goods, possible source for webbing or rope. Military/public safety surplus gear.  
(408) 377-1362 [www.mvsurplus.com/](http://www.mvsurplus.com/)



**NASAR:**

The National Association for Search and Rescue, Inc., (NASAR) is a not-for-profit membership association dedicated to advancing professional, literary, and scientific knowledge in fields related to search and rescue. NASAR is comprised of thousands of paid and non-paid professionals interested in all aspects of search and rescue - the humanitarian cause of saving lives - throughout the United States and around the world.

(703) 222-6277 [www.nasar.org/nasar/](http://www.nasar.org/nasar/)



**REI:**

Various locations.

Almost all of the equipment is available here; carabiners, 8mm accessory cord, webbing, and other climbing gear.

[www.rei.com/](http://www.rei.com/)



**SEARCH GEAR:**

9235 Chesapeake Dr. #G, San Diego CA 92123  
Distributors of search gear world wide online.

(800) 474-2612 [www.searchgear.com/](http://www.searchgear.com/)



**Stevens Creek Surplus:**

3449 Stevens Creek Blvd. Santa Clara, CA  
(between Winchester Blvd. and San Tomas Expwy.)  
Outdoor good store, military surplus, BDU pants,  
mostly works clothing.

(408) 244-0773 [www.scsurplus.com/](http://www.scsurplus.com/)



**Summit Uniforms:**

545 Meridian Ave, Suite "A", San Jose, CA  
(north of Hwy 280 on Meridian Ave.) Uniform pants and shirt.  
Order your name tapes and patch sewing here.

(408) 293-8633 [www.summituniforms.com/](http://www.summituniforms.com/)



**Team Golden Designs**

5741 Arrowhead Dr.  
Foresthill, CA 95631  
(530) 367-3086 [www.teamgolden@ftcnet.net](mailto:www.teamgolden@ftcnet.net)



**Thomas Brothers Maps**

9855 Woods Drive  
Skokie, IL 60077  
(800) 678-7263 [www.randmcnally.com/](http://www.randmcnally.com/)



**U.S. Cavalry:**

Military and law enforcement supplies, including  
BDU/5.11 pants and name tapes.

online store. [www.uscav.com/](http://www.uscav.com/)



**Workingman's Emporium:**

260 N. First St, San Jose, CA

(north of Julian St on First St.). Uniform shirts only. Sewing not available.

(408) 287-3942 [www.workingmans.com/](http://www.workingmans.com/)



**Work World:**

5353 Almaden Expwy., San Jose, CA

(south of Hwy 85, in the Almaden Plaza, across from Costco).

Uniform shirts. Sewing not available.

(408) 445-1644 [www.workworldamerica.com/](http://www.workworldamerica.com/)

