

MERIT BADGE SERIES



SEARCH AND RESCUE



BOY SCOUTS OF AMERICA®

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"Enhancing our youths' competitive edge through merit badges"



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Requirements

1. Do the following:
 - a. Explain to your counselor the hazards you are most likely to encounter while participating in search and rescue (SAR) activities, and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.
 - b. Discuss first aid and prevention for the types of injuries or illnesses that could occur while participating in SAR activities, including: snakebites, dehydration, shock, environmental emergencies such as hypothermia or heatstroke, blisters, and ankle and knee sprains.
2. Demonstrate knowledge to stay found and prevent yourself from becoming the subject of a SAR mission.
 - a. How does the buddy system help in staying found and safe?
 - b. How can knowledge of the area and its seasonal weather changes affect your plans?
 - c. Explain how the Ten Essentials are similar to a “ready pack.”
3. Discuss the following with your counselor:
 - a. The difference between *search* and *rescue*
 - b. The difference between *PLS* (*place last seen*) and *LKP* (*last known point*)
 - c. The meaning of these terms:
 - (1) AFRCC (Air Force Rescue Coordination Center)
 - (2) IAP (Incident Action Plan)
 - (3) ICS (Incident Command System)
 - (4) Evaluating search urgency
 - (5) Establishing confinement
 - (6) Scent item
 - (7) Area air scent dog
 - (8) Briefing and debriefing

4. Find out who in your area has authority for search and rescue and what their responsibilities are. Discuss this with your counselor, and explain the official duties of a search and rescue team.
5. Working with your counselor, become familiar with the Incident Command System. You may use any combination of resource materials, such as printed or online. With your counselor, discuss the features of the ICS and how they compare with Scouting's patrol method.
6. Identify four types of search and rescue teams and discuss their use or role with your counselor. Then do the following:
 - a. Interview a member of one of the teams you have identified above, and learn how this team contributes to a search and rescue operation. Discuss what you learned with your counselor.
 - b. Describe the process and safety methods of working around at least two of the specialized SAR teams you identified above.
 - c. Explain the differences between wilderness, urban, and water SARs.

To complete requirement 5, you may need to go online (with your parent's permission). See the resources section for more information.

A Note About Unauthorized and Restricted Activities

The BSA's *Guide to Safe Scouting* states under "Unauthorized and Restricted Activities" that flying in aircraft as part of a search and rescue mission is an unauthorized activity for youth members. For complete information, see <http://www.scouting.org/scoutsorce/HealthandSafety.aspx>.

7. Discuss the Universal Transverse Mercator (UTM) system, latitude, and longitude. Then do the following:
 - a. Using a 1:24,000 scale USGS topographic map, show that you can identify a location of your choice using UTM coordinates.
 - b. Using a 1:24,000 scale map, ask your counselor to give you a UTM coordinate on the map, then identify that location.

- c. Show that you can identify your current location using the UTM coordinates on a Global Positioning System (GPS) unit and verify it on a 1:24,000 scale map.
 - d. Determine a hypothetical place last seen, and point out an area on your map that could be used for containment using natural or human-made boundaries.
 8. Choose a hypothetical scenario, either one presented in this merit badge pamphlet or one created by your counselor. Then do the following:
 - a. Complete an incident objectives form for this scenario.
 - b. Complete an Incident Action Plan (IAP) to address this scenario.
 - c. Discuss with your counselor the behavior of a lost person and how that would impact your incident action plan (for example, the differences between searching for a young child versus a teen).
 - d. After completing 8a–8c, discuss the hypothetical scenario with your counselor.
 9. Discuss with your counselor the terms *hasty team* and *hasty search*. Then do the following:
 - a. Plan and carry out a practice hasty search—either urban or wilderness—for your patrol or troop. Include the following elements in the search: clue awareness, evidence preservation, tracking the subject, and locating the subject using attraction or trail sweep.
 - a. When it's over, hold a team debriefing to discuss the hasty search. Discuss problems encountered, successful and unsuccessful tactics, and ideas for improvement.
 10. Find out about three career or volunteer opportunities in search and rescue. Pick one and find out the education, training, and experience required for this professional or volunteer position. Discuss this with your counselor, and explain why this position might interest you.

Search and Rescue Resources

Scouting Literature

Boy Scout Handbook; Fieldbook; Backpacking, Climbing, Emergency Preparedness, Fire Safety, First Aid, Geocaching, Hiking, Lifesaving, Motorboating, Orienteering, Radio, Rowing, Safety, Scuba Diving, Small-Boat Sailing, Swimming, Weather, Whitewater, and Wilderness Survival merit badge pamphlets

Visit the Boy Scouts of America's official retail website (with your parent's permission) at <http://www.scoutstuff.org> for a complete listing of all merit badge pamphlets and other helpful Scouting materials and supplies.

Books

- Cook, Mike, Guy Kerr, Rick LaValla, et. al. *Urban Search Management for the Initial Response Incident Commander*. ERI Canada Inc. and ERI International Inc., 2004.
- Eng, Ronald C., ed. *Mountaineering: The Freedom of the Hills*. The Mountaineers Books, 2010.
- King, Rick, and Chuck White, eds. *Mountain Travel and Rescue Manual*. The Mountaineers Books, 2012.

Kjellstrom, Bjorn, and Carina Kjellstrom Elgin. *Be an Expert with Map and Compass: The Complete Orienteering Handbook*. John Wiley & Sons, 2009.

LaValla, Richard, Patrick Hood, Ricj Lawson, Norm Kerr, and Guy Smith. *Basic Search and Rescue Skills: A Practitioner's Guide to Search and Rescue*. ERI Canada Inc., 2007.

Letham, Lawrence, and Alex Letham. *GPS Made Easy: Using Global Positioning Systems in the Outdoors*. The Mountaineers Books, 2008.

NASAR. *Fundamentals of Search and Rescue*. Jones and Bartlett Publishers, 2005.

NASAR. *Introduction to Search and Rescue*. National Association for Search and Rescue, 2008.

Setnicka, Tim J. *Wilderness Search and Rescue*, 1981.

Online Resources

ICS Forms

Website: <http://www.fema.gov/emergency/nims/JobAids.shtm>

National SAR Plan

Website: [http://www.uscg.mil/hq/cg5/cg534/manuals/Natl_SAR_Plan\(2007\).pdf](http://www.uscg.mil/hq/cg5/cg534/manuals/Natl_SAR_Plan(2007).pdf)

New Mexico SAR Field Certification Study Guide

Website: http://nmsarc.org/resources/FieldCert_docs/StudyGuide.pdf

Search Urgency Chart

Website: www.eri-online.com/uploads/MLSO_Search_Urgency_Chart.pdf.

“Suunto on How Not to Rely on Luck & Compass and Map”

Website: http://www.crew572.org/resources/map_and_compass/Suunto.pdf

Urgency Determination Worksheet

Website: www.k7rdg.org/ICSforms

Wilderness Survival Guide

Website: <http://www.wilderness-survival-skills.com/>

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Organizations and Websites**Air Force Rescue Coordination Center**

Website: <http://www.1af.acc.af.mil/units/afrc/>

American Avalanche Association

Website: <http://www.americanavalancheassociation.org>

American Institute for Avalanche Research and Education

Website: <http://avtraining.org>

American Medical Response Reach and Treat Team

Website: <http://www.summitpost.org/amr-reach-and-treat-who-we-are-and-what-we-do/172226>

American Mountain Guides Association

Website: www.amga.com

Colorado Geological Survey

Website: <http://avalanche.state.co.us>

Federal Emergency Management Agency

Telephone: 202-566-1600

Toll-free telephone for literature requests only: 800-480-2520

Inland SAR School

Website: <http://www.uscg.mil/tcyorktown/ops/sar/inland/default.asp>

Mountain Rescue Association

Website: www.mra.org

National Association for Search and Rescue (NASAR)

P.O. Box 232020

Centreville, VA 20120-2020

Website: <http://www.nasar.org/>

National SAR School

Website: <http://www.uscg.mil/tcyorktown/ops/sar/default.asp>

National Ski Patrol

Website: <http://www.nsp.org>

New Hampshire Fish and Game Department Specialized Search and Rescue Team

Website: http://www.wildlife.state.nh.us/Law_Enforcement/sar.htm

New Hampshire Outdoor Council

Website: www.nhoutdoorcouncil.org

**New Mexico Department of
Public Safety, Search and Rescue
Resource Office**

P.O. Box 1628

Santa Fe, NM 87504-1628

Website: <http://www.dps.nm.org/index.php/search-rescue/>

**New Mexico Search and
Rescue Council**

P.O. Box 3396

Albuquerque, NM 87190-3396

Website: <http://nmsarc.org/resources/certification.html>

Urban Search and Rescue

Website: <http://www.fema.gov/emergency/usr>

U.S. Air Force Pararescuemen

Website: www.pararescue.com

U.S. Coast Guard

Website: <http://www.uscg.mil>

U.S. Geological Survey

Website: <http://topomaps.usgs.gov>

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Doug Palmer, chairman—retired, associate director of Program, Philmont Scout Ranch; New Mexico Certified Type II field co-coordinator/Incident Commander

Mark Anderson—Eagle Scout; director of Program, Philmont Scout Ranch; field coordinator, New Mexico State Police Search and Rescue

Mary Berry, D.V.M.—founder, Sandia Search Dogs, certified trainer, Search and Rescue dogs in trailing, area air scent, cadaver, and FEMA disaster dogs

