

**CAVE SAFELY / CAVE SOFTLY SAFE CAVING PROJECT**

Version 2.0

Developed as a Community Service Project  
by  
The Timpanogos Grotto  
of the National Speleological Society  
and  
Venture Crew 451  
Utah National Parks Council  
Boy Scouts of America  
for  
The National Speleological Society's Youth Group Relations Liaison Committee  
and  
Youth Organizations

March 22, 2006

Organized by  
Charles M. Acklin

With input, participation, observation and encouragement from

#### THE COMMITTEE OF THREE

John Gookin-National Outdoor Leadership School, Peter Ruplinger-Timpanogos Grotto-Trainer, Judith McCullen-Timpanogos Grotto-Recorder, Patricia Bingham-National Speleological Society-Youth Group Relations, Jon Jasper-National Park Service, Carson Mellott-Timpanogos Grotto, Brandon Kowallas-Timpanogos Grotto-Chairman, Justin Epps-Timpanogos Grotto-Trainer, Phil Brown-Utah National Parks Council-Crew 541, Richard Downey-National Speleological Society-Library, Amy Bern-National Speleological Society-Education Division.

#### THE COMMITTEE OF MANY

Michael and Karol Beard, Vern and Margaret Bowden-Bear River Grotto, David Bresnahan-Scout Leader, Keith Christenson-Boy Scouts of America-Regional Representative, Rob Cranney-Timpanogos Grotto, Jim Glenn, Steve Goodwin-Bureau of Land Management, Andrew Green, Dale Green-Salt Lake Grotto, Jeremy Jackson, Shay Lelegren-Utah National Parks Council-Timpanogos Grotto, Dan Peden-Salt Lake Grotto-Great Salt Lake Council, Ralph Powers-Timpanogos Grotto Trainer, James Richie-Timpanogos Grotto, Aaron Rigby-Timpanogos Grotto, Steve Roper-Timpanogos Grotto, Dave Schurtz-Wasatch Grotto, Rob Stilmar-Timpanogos Grotto, Roger Taylor-Timpanogos Grotto, Yuri Tijerino-Scout Leader, Kyle Voyles-Bureau of Land Management, Color Country Grotto, Lee Werst-Timpanogos Grotto, Bill Wright-Timpanogos Grotto, Doug Zeddis-Timpanogos Grotto Trainer, Carol Zokites-Project Underground, Brian Zwahlen, Peggy Nims-American Cave Conservation Association, Scott Petersen-Scout Leader, Tyler Jones- Church of Jesus Christ of Latter-day Saints-Youth Organization Representative, Tom Powell-BSA Utah National Parks Council, Kim Hardcastle-BSA- Trapper Trails Council, Jim Goodbar-Bureau of Land Management, Betsy Duncan-Clark-National Park Service, Rod Horrocks-National Park Service, Ron Kerbo-National Park Service, , Pat Taylor-Pittsburgh Grotto, Matt Anderson-Thunder Scout Reservation, Jeff Elliott-Thunder Scout Reservation, Joe Wortham-Thunder Scout Reservation, Loyal Clark-US Forest Service, Harold Jacklin-Utah National Parks Council-Risk Management Committee, Mary Ann Packer-BSA-Trapper Trails Council, Mark Engel-NSS-York Grotto.

Youth Group Members Boy Scouts Of America, Venture Crew 451, Orem Utah  
Phil Brown-Adult Leader, Tyler Jones-Youth Organization Representative, Brent Christensen-Crew Leader, Jake Mallory-Crew Leader, Trevor Stevens, Michael Mallory, David Ball, Hector Castillo.

Edited by Justin Epps and Rachael Jean Keske

## **The Cave Safely / Cave Softly Project Abstract**

This document is the result of eight years of development and testing. It was not developed by committee discussion. It came from hands on, practical experiences. From its application, the project was reduced and simplified into its present form.

It is not all-inclusive. It is not perfect. It is a beginning; a foundation document for cavers and youth group leaders to use, modify and improve on, and then share with others.

This is intended to be ongoing; a work in progress. So, it will change and develop as others add their experiences and resources. It will be distributed in a form (MS Word) that will be easily modified.

The Cave Safely/Cave Softly Project (Version 2.0) provides a ‘template’ for grottos and youth organizations to use and modify to teach cave exploration techniques.

### **The Need for This Project**

1. Cave training is needed for youth groups.
2. Youth group leaders do not know where to get cave exploration training.
3. Youth group leaders may be unaware of the dangers of cave exploration.
4. Grottos do not have a format or program for teaching caving techniques.

### **Limitations:**

Grotto resources to meet Youth Organization expectations.

### **Next Steps: Refer to the Next Steps Pages for details.**

- Distribute the Cave Safely / Cave Softly Project (v 1) to Cave Organizations
- Establish a clearinghouse or houses for cave safety training
- Improve the meeting outlines
- Expand resources
- Format the document
- Create a Grotto Position for Youth Group Relations
- Get grotto members actively participating as members of Youth Group Risk Management Committees
- Influence youth group caving policies and practices
- Educate grotto members on the risks of working with youth groups
- Recognize improvements at meetings and conventions
- Meeting the need for training with limited grotto resources (time, talent, and dollars)
- Develop an Example Library
- Caving organizations provide a forum for a ‘training template’ and avoid attempting to create an all-inclusive training program

## The Cave Safely / Cave Softly Project (v.1) Contents

The Cave Safely / Cave Softly Project Abstract .....	3
Forewords .....	5
Purpose of this Project .....	5
Assurances .....	5
Results of Involvement .....	5
Youth Group Leader and Caver Relationships .....	6
Caver and Youth Group Involvement.....	6
Weakness and Value .....	7
Liability of Authors and Publisher.....	7
Liability and Assessment of Responsibility.....	7
Meeting Structure.....	8
Youth Group Policies .....	8
Meeting Tiers .....	8
Meeting Format.....	8
Presenters .....	8
Caving Resources.....	9
Books and Other Printed Material .....	9
Videos .....	10
Internet .....	10
Tier 1 .....	11
First Meeting: Training Organization .....	11
Second Meeting: Caving and Equipment .....	13
Third Meeting – Caving Techniques .....	15
First Outing - Commercial Cave Trip.....	17
Tier 2 Horizontal Caving Skills .....	18
Fourth Meeting – Cave Bag .....	18
Fifth Meeting – Cave Knots.....	20
Sixth Meeting - First Aid Review .....	21
Seventh Meeting – Wild Cave Trip Planning .....	22
Second Outing - Wild Cave Trip .....	23
Eighth Meeting - Parents’ Night Cave Softly / Cave Safely Presentations .....	24
Tier 3 Vertical Caving – Above Ground Training.....	25
Should Scouts Be Taught Vertical Caving Techniques? Survey.....	26
Summary .....	26
General Comments.....	27
Leader / Trainer Qualifications .....	28
Training.....	29
Practice.....	30
Risks.....	32
Scout Leaders Comments .....	33
Meeting One - Basic Vertical Skills Introduction.....	34
Meeting Two – Basic Vertical Skills Above Ground Practice .....	35
Meeting Three - Basic Vertical Skills Above Ground Practice .....	36
Meeting Four – Basic Vertical Skills – Above Ground Practice .....	37
Grotto Youth Group Liaison Officer .....	38
Next Steps and Improvements .....	39

## Forewords

Many youth group leaders want to involve their group members in cave exploration activities. This project was taken on and developed for youth group leaders, cave owners, Government and Education Agencies, and Cave Exploration Associations.

## Purpose of this Project

Many serious cave explorers want nothing to do with youth organizations. Primarily, Boy Scout groups are blamed for irresponsible cave exploration. In reality the problem lies with the adult leaders, who blatantly disregard youth safety, youth organization policies, and cave resources. This situation causes nationwide concern within cave exploring groups, youth organizations, and search and rescue groups.

The Boy Scouts of America and other youth organizations are actually 'the good guys,' with policies and procedures that require safe and responsible caving practices and behavior.

Something is needed to open the way for youth leaders and young men and young women to become educated in safe, responsible cave exploration. This project is intended to get the cave exploring community involved in preparing future leaders and members for our associations, societies, and grottos while supporting youth group policies and procedures.

## Assurances

There are no assurances! **CAVE EXPLORATION IS INHERENTLY DANGEROUS.** By participating in orientation and training for cave exploration, there are no assurances that anyone will be safe.

## Results of Involvement

The Utah National Parks Council-Health and Safety Committee, National Speleological Society-Youth Group Liaison Committee, and Timpanogos Grotto are aware of unskilled leaders taking their youth groups into Utah caves. The Safe Caving Pilot Project is an attempt to provide structure and suggestions for safe cave exploration, cave conservation, and preservation.

A safe caving pilot project being developed in Utah has attracted the support of the American Cave Conservation Association, the National Parks Service, the Bureau of

Land Management, the US Forest Service, Timpanogos Cave National Monument, Great Basin National Park, and the Utah School Land Trust.

The project will result in a program and tested process to orient adult youth leaders and train youth group members in safe caving practices, cave conservation, and cave resource preservation. It will provide a template for NSS Grottos, BSA Councils, and Cave Owners to use for training to reduce the risk of cave accidents.

In November 2003, The Utah National Parks Council established a Caving Position. This position will link groups interested in caving to appropriate resources provided by the NSS, grottos, and other cave groups. Intentions are to have all tour permits for caving trips be approved on the basis of leader orientation, and the completion of scout and scout leader training.

### **Youth Group Leader and Caver Relationships**

Youth Group leaders should never subject their organization to the risks of cave exploration without training. Youth Group leaders should interview and be comfortable with the cavers who train their youth group participants. If leaders are not comfortable with the quality of training and the people who will lead the group, – it is their responsibility to terminate the program.

Cavers must be aware of the youth leader's strengths, their ability to work with their members, and the leader's willingness to follow organization guidelines and policies. If the youth leader is not willing follow Leave No Trace Caving principles and safe caving practices, – terminate the program and notify the youth organization.

### **Caver and Youth Group Involvement**

The pilot project is 80% complete. The training materials and curriculums are intended to support guidelines of youth organizations and grottos. The final 20% will come from future involvement of youth group leaders, members of youth groups, and cavers.

This project was developed with involvement in mind, and two project committees were created. The "Committee of Three" kept the project on track. The "Committee of Many" was for everyone who wanted to participate. Over fifty cavers and youth group members, from nine states got involved.

Participation involved high levels of activity to valuable observation. Those involved included cave skill trainers, volunteer trip resource people (trip leaders), curriculum developers, and people with ideas.

## **Weakness and Value**

Version 1.0 is now available for your uses and modification. The challenge and greatest weakness is, and will continue to be, the people who are necessary to support the Cave Exploration Policies of youth groups. Far too many youth group leaders will continue to disregard policies, set common sense aside, and place themselves and the youth group members at risk. Cavers may take groups caving without first training the group members.

The value of this project is that through participation, leaders and cavers will modify these policies for their groups, a tragedy will be averted, and one life will be saved.

## **Liability of Authors and Publisher**

The authors and publisher of this document make no representation and offer no warranty about the quality, safety, contents, performance, merchantability, non-infringement, or suitability of the material in this brochure. Neither authors nor the publisher are liable for direct, indirect, punitive, special, incidental, or consequential damages.

## **Liability and Assessment of Responsibility**

All who read this must assess the quality and applicability of this information. No liability will be accepted for the use or misuse of this information or for consequences that result from its use or misuse.

Cave Safely / Cave Softly,

The Committee of Three

## **Meeting Structure**

### **Youth Group Policies**

The meetings and training activities must follow the youth organization's Caving Policy. It is the responsibility of the presenters and the youth group leaders to assure that all aspects of the policy are covered during training activities.

### **Meeting Tiers**

Meetings are organized into three Tiers of Training based on age groupings.

Tier 1 – Covers introductory caving experiences (Ages 8-13)

Tier 2 - Horizontal Caving Practices - Includes Tier 1 (Ages 14-18)

Tier 3 – Vertical Caving Techniques - Includes Tiers 1 and 2 (Ages 14-18)

### **Meeting Format**

Meeting Title

Objectives: The learning objectives listed for the meeting

Outline: Outline of topics, activities and materials

Preparation: Suggestions for preparing the presentations

Suggestions from presenters' experiences

### **Presenters**

Two or more cavers are present for each training meeting. Having at least two cavers provides two perspectives to each presentation.

Consider using experienced young adults (the ages of the participants) involved with the training.

## **Caving Resources**

### **Books and Other Printed Material**

Jones, Cheryl, [A Guide to Responsible Caving](#), National Speleological Society, 2813 Cave Avenue, Huntsville, AL 35810. 256-852-1300, [nss@caves.org](mailto:nss@caves.org)

Boy Scouts of America, [Guide to Safe Scouting](#), Caving , Boy Scouts of America, Irvine TX, <http://www.scouting.org/pubs/gss/>

Boy Scouts of America , [Fieldbook](#), Boy Scouts of America, Irvine TX, <http://www.scouting.org/pubs>

Boy Scouts of America, [Varsity Team Program Features](#), Vol. I, pp104-121, Boy Scouts of America, Irvine TX, <http://www.scouting.org/pubs>

Boy Scouts of America, [Venturing Leader Manual](#) ,, Boy Scouts of America, Irvine TX, <http://www.scouting.org/pubs>

Rae, Tom, [Caving Basics](#), National Speleological Society, 2813 Cave Avenue, Huntsville, AL 35810. 256-852-1300, [nss@caves.org](mailto:nss@caves.org), 1997

Project Underground, c/o Carol Zokaites, 6245 University Park Dr. suite B Radford, VA 24141, 540-831-4057, [Carol.Zokaites@dcr.virginia.gov](mailto:Carol.Zokaites@dcr.virginia.gov)

Exploring Caves and Karst, National Caves Association, Box 280, Park City, KY, 42160, 866-552-2837 [www.cavern.org](http://www.cavern.org)

## Videos

<http://www.caves.org/imo/video.htm>

### **30-3121 A Scouting Approach to Wild Caves \$25.00**

This beautifully produced video was made by a Kansas Scout troop as an introduction to caves and caving, and is professional in every way. It is 100 minutes long and is segmented into chapters for use as a teaching aid;. It covers every aspect of caving, from history of use through modern vertical techniques and conservation ethics. Although it has a sScouting flavor, it is perfect for all beginning cavers, and even the veteran can learn something. *See the 4-Star Review in [Video Librarian Magazine](#)*

### **30-3306 Single Rope Ascending Systems \$15.00**

Negotiating vertical drops is a frequent challenge in caving. Getting down (rappelling) is fairly easy; climbing back up is more difficult. This video demonstrates and explains the current systems for rope climbing, including the Frog System, Ropewalker, and others, and shows how to set up a climbing rope for training. Proper technique and safety is emphasized in this production. Developed by the NSS Vertical section and produced by Dave Socky. 13 minutes. ©2003, Hodag Video Prod.

## Internet

[www.caves.org](http://www.caves.org) NSS website  
[www.cancaver.ca](http://www.cancaver.ca) The Canadian Cave and Karst Information Server  
[www.cavern.org](http://www.cavern.org) American Cave Conservation Association  
[www.goodearthgraphics.com/showcave.html](http://www.goodearthgraphics.com/showcave.html) US Show Cave Directory  
<http://www.caves.org/grotto/timpgrotto> Timpanogos Grotto  
[www.caveutah.com](http://www.caveutah.com) Brandon Kowallis's website on Nutty Putty  
[www.caversdigest.com](http://www.caversdigest.com) Cave information page  
[www.mistral.co.uk/42brghtn/knots/42ktmenu.html](http://www.mistral.co.uk/42brghtn/knots/42ktmenu.html) Animated knots  
[www.tollesburysc.co.uk/Knots/Knots\\_gallery.htm](http://www.tollesburysc.co.uk/Knots/Knots_gallery.htm) Animated knots  
[www.realknots.com/knots](http://www.realknots.com/knots) Knots

## Tier 1

### First Meeting: Training Organization

#### Objectives:

1. Meet leaders
2. Meet participants
3. Present cavers' point of view
4. Introduce and overview Safe Caving Project
5. Determine commitment
6. Meet with leaders and make decision to continue

#### Outline:

##### A Cavers Introduction

- a Name
- b Years caving
- c Caving organization affiliation
- d Scouting affiliation or participation
- e Why you cave
- f Importance of safe and soft caving

##### B Youth Leaders and Participants Introduce

- a Name
- b Age
- c Years involved with the youth group
- d Why you participate in the youth group
- e Why you want to go caving

##### C Introduce the Safe Caving Project

- a The youth group policy must be followed.

##### D Permissions and permits are necessary for all trips and training activities.

- a Talk about cave conservation and preservation
- b Discuss the importance of safe caving practices.
- c Talk about each meeting
- d Describe the caving trips

##### E Commercial cave trip

Experience a cave

Check out how participants behave on a caving trip.

##### F Horizontal wild cave trip .

Follow Youth Group age restrictions for horizontal caving.

Practice what you learned

Check out how participants interact on a caving trip.

Determine readiness for more advanced horizontal caves

##### G Vertical techniques training

- 1 Many grotto's youth groups will not focus on vertical caving because the risks involved and the need for specialized equipment exceeds the budgets of the youth group and its members.
- 2 Even when vertical wild caves are not entered, some youth organizations will want vertical training and grotto or National Cave Search and Rescue trainers/members may be available for training vertical skills. Refer to Tier 3.

## H Introduce Wavers and Permission Forms

### I Decision

- a Determine the levels and extent of training
- b Set meeting schedule
- c Establish participation criteria

### J Preparation:

- After you receive the request, contact the youth group leader.
- Discuss the dangers of caving.
- Request a copy of the youth organization's caving policy.
- Explain that you and the leaders must strictly follow the organizations safety, preparation, and policy guidelines.
- Setup a meeting to meet the participants and discuss the Safe Caving Project.

### Suggestions from Presenters' Experiences.

- A person may be is skilled in climbing or might have earned a climbing or rappelling badge or taken a climbing course; is not an indicator that, he or she is qualified to enter a vertical cave until he or she has become proficient in vertical caving techniques.
- Do not expect youth group members to be anxious to hear what you have to say. Some youth participants may confront you or may simply be obnoxious – ignore it. Talk to the leader after the meeting. Grotto members are guests. It is the youth leader's job and responsibility to manage his or her group.
- Make observations to determine if you should go forward with the project.
- If participants do not come to training meetings exclude them from the outings.
- Be very cautious in taking on a project for groups of young people who give the appearance that they could present behavior situations that could be a risk to the group or to you when underground. Problem groups should not go beyond Tier 1 activities or participate in anything beyond the most basic horizontal cave.
- Have waivers for parents' signatures. Refer to Caving Basics, Appendix B, Legal Forms and Releases, p 163.

Tier 1

## **Second Meeting: Caving and Equipment**

Objectives: The learning objectives listed for the meeting.

1. Become excited about caving.
2. Watch a slide show of a horizontal cave.
3. Learn basic cave formation types.
4. Participate in caving equipment demonstrations.

Outline: Outline of topics, activities and materials.

### **A Introduction:**

- a Slide show presentation of a horizontal cave

### **B Equipment Demonstration**

- a Scouts were educated on and shown appropriate equipment to own before entering caves. (Avoid using carbide lamps other than showing the difference between carbide and electric lights.)

- b Distribute an equipment checklist and describe and explain caving equipment:

#### Equipment list

- o Helmet - #1 most important piece of cave equipment
  - o Boots - #2 most important piece of cave equipment
  - o 3 sources of light – primary light (carbide or electric lamp, Show differences, discuss advantages and disadvantages Extra light sources, flashlights, candle
  - o Coveralls (cotton, nylon)
  - o Pants & shirt (discussed jeans, shirts, and pants)
  - o Change of clothes for ride home
  - o Cave bag containing: a backup light source, food, water, first aid kit, candle, waterproof matches or waterproof container for matches
  - o Gloves
  - o Bandana
  - o Knee pads
  - o Small notebook & pen
  - o Discuss burrito bags and pee bottles
- c Discuss the importance safe cave training.
  - d After meeting activity to:
    - Visit a sporting goods store or NSS-affiliated organization or have them make a presentation to your crew so you can learn about personal caving gear, including helmets, light sources, backup lighting sources, clothing, boots, cave packs, etc.
    - Find out what the American National Standards Institute requirements are for helmets. Be able to demonstrate what makes a good caving helmet.

### **C Remind participants to have parent permission/waivers ready for the next meeting.**

#### Preparation: Suggestions for preparing the presentations

- Have a slide show of a horizontal cave.
- Rent a cave show from the NSS Library.
- Avoid showing technical climbing and rope work. The youth group members will more than likely think that you are 'cool' simply because you are an experienced caver. We as cavers do not need to use training as a stage for flaunting our egos.
- Organize cave experience stories to illustrate the importance of the equipment cavers take caving.
- Do not go into the contents of the cave bag. Cave bags and making cave pigs will take place during the cave bag meeting.

#### Suggestions from presenters' experiences

- Always have two cavers at presentations. This way the group can learn from two experienced people.
- During the first meeting you may notice disruptive behaviors. If this occurs, describe your observation and the behaviors as a group behavior and problem. Avoid singling out individuals.
  - Ask what the group's intentions are.
  - Do not discuss the situation with the group. (We are not participating as counselors or group therapists.)
  - Caving is not an activity for resolving behavioral problems. (Time would be safer-spent participating in a less risky activity.)
  - Suggest that youth participants and their leaders discuss their intentions about caving and decide as a group if they are going to continue.
  - Decisions not to move forward will allow you time to work with another group.
  - Explain that you will expect a telephone call from the lead youth participant between the next day and one day prior to the meeting. If you do not hear from the lead youth participant you will understand and the program will be terminated.
  - Talk to the youth group leader about the situation.
- Assign group to get to a library and check out and read a book on cave exploration.
- Work on teamwork. Use a buddy system. Discuss how to work together in an emergency.

## Tier 1

### Third Meeting – Caving Techniques

Objectives: The learning objectives listed for the meeting.

1. Review caving equipment – importance of helmets
2. Organize a caving trip – commercial cave
3. Landowner relations
4. Cave conservation and preservation activities

Outline: Outline of topics, activities and materials.

#### A Review Caving Equipment

#### B Caving Techniques

- a Demonstration of wooden squeezebox
- b Experience a squeeze box
- c Crawl through a chair
- d Crawl, duck walk, stoop

#### C Organize A caving trip to a Commercial Cave

- a Discuss commercial caves in your area.
  - You may need to plan the trip as an overnight camping experience.
- b Determine the cave you want to visit.
  - Size up the cave you want to visit.
  - Discuss level of difficulty in the cave.
- c Delegate preparation activities.
  - Contact the cave to get visit schedules that fit your schedule.
  - Arrange for camping.
  - Determine the fees for camping and for entering the cave.
  - Set the time for the trip.
  - Make transportation arrangements.
  - Plan eating arrangements, food, and menus.

#### D Collect Parent Permission Forms and Waivers.

#### E Leaders must follow up with participants

- a Leaders to check equipment before the trip
  - All the equipment on the equipment checklist
- b Smoking, food, and drink are prohibited in all caves.
- c No stimulating beverages (no beer, no liquor, no caffeinated beverages)
  - Pilot group participants drank high sugar and caffeine beverages before entering a cave. Their hyperactivity brought on by the beverages endangered themselves and the group.
- d No pets allowed.
- e Remove all trash and human waste that they've made before leaving the cave.

#### F Be on the good side of the cave owners. Be responsible by volunteering to help them in any way that they can, display good behavior.

- a Distribute cave and karst conservation activities from
- b Project Underground

#### G Exploring Caves and Karst

- a After meeting activities

- b Gather and organize equipment
- H Participants call Leaders to have equipment checked

Preparation: Suggestions for preparing the presentations.

- Have phone numbers for cave owners
- Talk to cave owners before the meeting and the trip.
- Copy activities that the group would be interested in doing to learn more about caves.

Suggestions from presenters' experiences

- Remind youth group leaders that tour permits and parental permission is required.
- Contact land owner to assure arrangements are made.
- Update youth group leaders before the meeting.
- The team approach to caving is essential. Even in a commercial cave, youth group participants can practice a buddy system.
- Consider checking equipment at the participant's home with their parents.
- Have a final equipment check at the parking lot where they'll leave from to travel to the cave.
- Be strict about equipment. Cancel the trip if participants are not prepared with essential equipment, if they do not have helmets, or if one or more wear tennis shoes.
- Be strict about caffeinated beverages. If they are consumed consider canceling the trip.

## Tier 1

### **First Outing - Commercial Cave Trip**

Objectives: The learning objectives listed for the meeting.

1. Visit a cave.
2. Get ideas for a cave project, book to read, or activity to complete.

Outline: Outline of topics, activities, and materials.

- A Equipment check completed before the day of the trip
- B Meet on time, be serious, and professional.
- C Leave on time
- D After cave trip activities
  - a Contact a local grotto, cave tour organization, or the National Speleological Society (NSS) to request information about caving and information about caves and cavers near you.
  - b Learn about the different types of caves.
  - c Learn about caving courtesy, caving dos and don'ts, and what the youth organization policy is on cave exploring.
  - d Read at least one book about caving.
  - e Complete one cave or karst conservation activity.
  - f Come to the next meeting with one of the above activities completed.
  - g Bring 2, 1 gallon plastic bottles with screw caps and 5 feet of webbing or nylon chord for each boy to make a cave pig.

Preparation: Suggestions for preparing the presentations.

- Follow up with the leader.
- Follow up with the land owner.
- Prepare copies for the group or originals for the youth leaders to have copied.
- Have waivers with the youth group leader. Cancel the trip if permissions and waivers are not in place.

Suggestions from presenters' experiences.

- Follow up is essential.
- Like cavers, youth groups will rarely leave on time.
- Terminate your involvement if permission and /or tour permits are not completed and in hand.

## **Tier 2 Horizontal Caving Skills**

### **Fourth Meeting – Cave Bag**

Objectives: The learning objectives listed for the meeting.

1. Give a cave trip report.
2. Show slides of the trip.
3. Participate in a cave bag demonstration.
4. Make a cave pig.

Outline: Outline of topics, activities and materials

A Slide show presentation of the commercial caving trip

B Present parent permissions and waivers for participation in the outing.

C Brief reports on the activity/project completed

D Cave Bag Demonstration

- Pack
- First Aid Kit
- Two garbage bags dead air space
- Backup lights
- Batteries spare bulbs
- Pee bottle
- Burrito Bag
- Food
- Whistle
- Duct tape
- Surgical masks to fit inside top of helmet for use in case there's a lot of dust
- Bottled water
- Cereal or power bar or light non-perishable food
- Candle
- Waterproof matches

E Must Have Items to Bring

- Medications
- Complete change of clothing and shoes
- Another plastic garbage bag for dirty clothing
- Parental consent form and/or waivers
- Health form (You must know what potential problems may arise )
- Trip permits

F Optional Equipment

- Space blanket
- Hand warmer pouches
- Disposable flash camera
- Magnifying glass
- Sketch books
- After-trip snack
- Money for incidentals

## G Group Equipment

- First aid kit for in-cave use cave map and compass
- Pencil and small note pad for each adult
- Out-of-cave emergency cache

## H Make a Cave Pig

### Preparation: Suggestions for preparing the presentations

- Have leaders get boys to bring 2 1 gallon plastic bottles and 5 feet of webbing or nylon rope to make a pig.
- Assemble your cave bag.
- Have garbage bags for heat tent demonstration.

### Suggestions from presenters' experiences

- Making the pig is important. The size of the bottles standardizes the cave bag and will limit the amount of things the participants will take into a cave.
- Explain or demonstrate the use of each item. (Just explain the Pee Bottle and Burrito bag.)
- Demonstrate the heat tent and double bagging.
- Have everyone make and use a pig - simply to try it out.
- Be prepared for participants who have health problems, physical limitations, attention disorders. Adjust the program to fit their limitations.

Tier 2

### **Fifth Meeting – Cave Knots**

Objectives: The learning objectives listed for the meeting.

1. Learn knots
2. Practical application of knots (use a climbing wall)

Outline: Outline of topics, activities and materials.

A Learn and practice caving knots – show what each knot is used for.

- a Endline knots:
  - bowline
  - figure eight
  - figure eight on a bight
- b Midline knots:
  - bowline on a bight
  - butterfly
- c Joiner knots:
  - water knot
  - fisherman
  - figure eight on bend
  - Prusik knot
- d Teach these knots to another person, a parent, a friend, brother or sister or another group.

Preparation: Suggestions for preparing the presentations

- Bring enough rope (6-12 foot lengths) for each person.
- Remind leaders to have participants bring pig materials.

Suggestions from presenters' experiences

- Do this meeting at a climbing wall.
- Good news and bad news – bad news -learning knots is boring for some people. Good news is you need to know them if you are going into even easy caves.
- Use activities for teaching knots. Set up in cave scenarios or problems that are solved by using knots.
- This is an introduction to these knots. You may want to break this up into two meetings.
- It is best to learn these knots in meetings rather than doing it in a cave when you need it.

Tier 2

### **Sixth Meeting - First Aid Review**

Objectives: The learning objectives listed for the meeting

1. Review and practice first aid.

Outline: Outline of topics, activities and materials

- A Discuss need for First Aid knowledge in Caves
  - a Tell cave accident stories
- B List cave related injuries
  - a Head and neck
  - b Lacerations
  - c Falls
  - d Fractures
  - e Hypothermia
  - f Heart attack
- C Review Basic First Aid
  - a Head lacerations
  - b C-spine stabilization
  - c Fractures
  - d Hypothermia
  - e CPR
- D Cave accident scenarios –

Discuss - How to react, how to prevent, and how to prevent what to expect

  - a Caver fractures arm
  - b Minor slip injury in a wet cave with an air temperature of 54 degrees F
  - c Not wearing helmet stands up and hit head on stalactite
  - d Twisted ankle
  - e Dislocated shoulder
  - f Severe chest pains
  - g Fainted and breathing stopped
  - h Getting lost
  - i Getting stuck
- E Discuss and demonstrate how to get an injured person stabilized and out.
- F Remind the group to bring signed parent permission and waivers to the next meeting.
- G After meeting activity
  - a Assign group to make a caving first aid kit
    - One kit for the group
    - A personal kit for their cave bag

Preparation: Suggestions for preparing the presentations

- Get search and rescue people involved in this meeting
- Get an EMT involved to teach the first aid.
- Get cave accident reports

Suggestions from presenters' experiences

- This is an important meeting. If participants miss this meeting, exclude them from the outing.

## Tier 2

### Seventh Meeting – Wild Cave Trip Planning

Objectives: The learning objectives listed for the meeting.

1. Review caving skills – importance of helmets
2. Organize a wild cave caving trip
3. Landowner relations
4. Cave conservation and preservation discussion. This is a cave-cleaning trip.
5. Demonstrate the use of a cave map

Outline: Outline of topics, activities and materials

#### A Overview

- a This is like an examination and audition.
- b How this works will determine the kind of cave we will go to on the next trip.
- c The caver who will participate will make observations on how well you cave.
- d Review caving equipment
- e Discuss caving techniques

#### B Organize a caving trip to a wild cave

- a Collect waivers
- b Discuss wild caves in your area.
- c You may need to plan the trip as an overnight camping experience.
- d Determine the cave you want to visit.
- e Show a map of the cave and how to use it.

#### C Delegate preparation activities

- a Contact the cave to get visit schedules that fit your schedule.
- b Arrange for camping
- c Determine the fees for camping and for entering the cave.
- d Set the time for the trip.
- e Make transportation arrangements (Cavers should avoid transporting youth group members.)
- f Plan menus

#### D Leaders to follow up with participants

- a Leaders to check equipment before the trip

#### E Review Rules

- a Smoking is prohibited in all caves.
- b No stimulating beverages. (No beer, no liquor, no caffeinated beverages)
- c No pets allowed.
- d Remove all trash & human waste that they've made before leaving the cave.
- e Be on the good side of the cave owners. Be responsible by volunteering to help them in any way that they can, display good behavior.

#### F Distribute cave and karst conservation activities handouts.

- a Project Underground
- b Exploring Caves and Karst

#### G After meeting activities

- a Gather and organize equipment
- b Participants call leaders to have equipment checked

## Tier 2

### **Second Outing - Wild Cave Trip**

Objectives: The learning objectives listed for the meeting

1. Visit a cave.
2. Get ideas for a cave project, book to read, or activity to complete.

Outline: Outline of topics, activities and materials

- A Equipment check completed before the day of the trip
- B Meet on time, be serious and professional
- C Leave on time
- D After cave trip activities
  - a Contact a local grotto, cave tour organization, or the National Speleological Society (NSS) to request information about caving and information about caves and cavers near you.
  - b Learn about the different types of caves.
  - c Learn about caving courtesy, caving dos and don'ts, and what the youth organization policy is on cave exploring.
  - d Read at least one book about caving.
  - e Complete one cave or karst conservation activity
  - f Come to the next meeting with one of the above activities completed.
  - g Bring 2, 1 gallon plastic bottles with screw caps and 5 feet of webbing or nylon chord for each boy to make a cave pig.

Preparation: Suggestions for preparing the presentations

- Follow up with the leader
- Follow up with the land owner
- Prepare copies for the group or originals for the youth leaders to have copied.
- Cancel the trip if permissions and waivers are not in place.

Suggestions from presenters' experiences

- Follow up is essential.
- Like cavers, youth groups will rarely leave on time.
- Terminate your involvement if permission and /or tour permits are not completed and in hand.

## Tier 2

### **Eighth Meeting - Parents' Night Cave Softly / Cave Safely Presentations**

#### Activities for a Parents Night

1. Set a date
  - a. Check with cavers to be sure they can make it.
  - b. Check with youth organization leaders and officials.
2. Make invitations
3. Plan a Program Agenda
  - a. Have one or two speakers
    - i. Motivational wrap-up
    - ii. Keynote Speaker
  - b. Organize a slide show
  - c. Have displays of equipment
  - d. Prepare a trip report
  - e. Show Project Underground / Exploring Caves and Karst Projects
4. Organize a Dinner
5. Have presentations for participants and leaders

#### Make Assignments

Youth group members organize and manage the activity

Agenda – Led by youth participants  
Pre meeting activities – Displays  
Opening comments  
Dinner  
Trip report  
Recognize leaders and trainers  
Certificate presentation  
Speakers  
Closing comments

### **Tier 3 Vertical Caving – Above Ground Training**

This section is not completed.

Except for groups composed entirely of experienced cavers, the cave to be explored must not require the use of ropes, ladders, or other climbing devices. The safe use of these aids requires extensive initial training and practice under controlled conditions above ground, never in a cave. BSA Caving General Policy

Timpanogos Grotto suggests that before a youth group starts vertical training, and because of the skill levels and specialized equipment and risks, above ground training will be offered only to those between the ages of 14 and 18 who participated in Tiers 1 and 2 and have an experience record of 10 wild horizontal caving trips.

Sponsoring organizations of vertical caving experiences for their youth groups must be fully aware of the risks of these activities before they give their approval.

## Should Youth Group Members Be Taught Vertical Caving Techniques? Survey

In the spring of 2004 the question of teaching youth between the ages of 13-18 vertical caving techniques was discussed. The following are the results of the discussion.

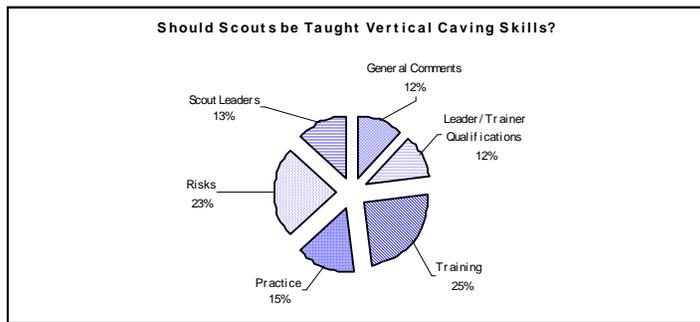
### Summary

Original Email..... 27

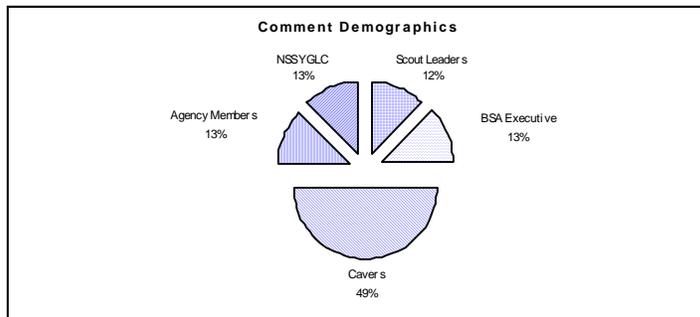
### Response Categories

General Comments..... 27  
 Leader / Trainer Qualifications..... 28  
 Training..... 29  
 Practice..... 30  
 Risks..... 32  
 Scout Leaders..... 33

### Comment Distribution by Category



### Comment Demographics



## Original Email

SHOULD SCOUTS BE TAUGHT VERTICAL CAVING SKILLS? YES, NO, or NOT SURE

I recently learned that a leader of a scout caving group was/is taking scouts into caves with prussic knots for ascending. The scout council in that area is very concerned and as a result of this practice is not permitting and caving activities.

I have seen too many vertical accidents - the margin for error is very small there. I am not excited about boys doing vertical caves. There is far too much risk and liability.

I talked to three Utah scout councils about vertical rope work in caves. One (Trapper Trails Council) is discouraging all caving. Great Salt Lake Council is stating that no vertical caves are allowed. Utah National Parks Council may not be permitting vertical caving. All are in the process of reviewing the risks of vertical caves. At this point let's stay away from vertical caving training and taking scouts into vertical caves as a part of the Scout Safe Caving pilot program. After a year or two of horizontal caving, grotto contact, and when the boys are 18 and older they can get with a grotto and learn on their own.

Let me know what you think - C.Acklin

## General Comments

1. "There are some things we would like every scout to experience and some that are available to those who have an interest and show the interest and apply themselves to go get them. Caving of course should remain in the second group."  
Kim Hardcastle, Boy Scouts of America, Trapper Trails Council
2. "There is a short list of folks I would feel comfortable to go into a vertical cave with. The decision would be based on experience and not any amount of training."  
Jon Jasper, Past President of the Timpanogos Grotto
3. "In my opinion vertical caving should be included in Scout Safe Caving Pilot, maybe not immediately but as a phase two development."  
Dave Shurtz, Wasatch Grotto member
4. "Ranger Elective Cave Exploring includes vertical rope requirements- 4.  
(a) Demonstrate that you know how to safely rappel a distance of at least 30 feet.  
(b) Demonstrate that you know how to ascend a rope using a mechanical ascenders or Prusik or other ascending knots. Ascend at least 30 feet."  
Carson Mellott, Varsity Scout Coach
5. *Varsity Team Program Features* Vol. I p. 116, references vertical caving and tells scouts to "Practice these skills under close supervision of a vertical caving instructor."  
Carson Mellott, Varsity Scout Coach

6. "I believe that learning caving (or any other skill) is a building process and unless a Scout or Scout leader has demonstrated competence in the vertical rope skills they must wait to enter vertical caves. This thought is referenced in the Guide to Safe Scouting section on caving, which states: **'Except for groups composed entirely of experienced cavers, the cave to be explored must not require the use of ropes, ladders, or other climbing devices. The safe use of these aids requires extensive initial training and practice under controlled conditions above ground, never in a cave.'**" Carson Mellott, Varsity Scout Coach

### **Leader / Trainer Qualifications**

1. "I think skill levels are more important than numbers of caves visited."  
Rob Stilmar, Timpanogos Grotto member
2. "I've trained dozens of people in controlled environments and helped increase their skill levels through a carefully thought out training regimen. My personal regimen stems from the training I've received from a local Cave Search and Rescue group (where senior members and instructors are NCRC certified) and from a "suggested" outline presented by members of the NSS Vertical Section and my years of experience (14 vertically 25+ overall caving)." Ralph E. Powers NSS #37616
3. "At present my qualifications for a horizontal or vertical caving instructor are thus: who does the local caving grotto leadership recommend? I have a mountaineering background so I have some rope skill background, however cave rope skills are quite a different perspective. The Timpanogos grotto leadership was first wary, but not closed. They recommended a skilled caver who is willing to work with youth and not teach bad habits." Carson Mellott, Varsity Scout Coach
4. "I've trained a Venture/Varsity scout troop in horizontal caving before elevating them to vertical, they have done VERY well thanks to the time and effort by other cavers willing to impart their personal skills and experience(s) to them."  
Ralph E. Powers NSS #37616
5. "BSA has specific vertical climbing leader/instruction techniques, certifications and requirements before scouts go on any slope 55 degrees or greater. They must have a belay and a hand-line for this. Lesser slopes require a hand-line. This is all just off the top of my head, but I know all about the 55-degree slope info; it's how I keep inexperienced BSA troops out of *difficult and sensitive* caves."  
Pat Bingham, National Speleological Society, Youth Group Relations Committee Chair
6. "Instructors for BSA scouts must be certified by BSA, or have attended a course approved by BSA." Pat Bingham, National Speleological Society, Youth Group Relations Committee Chair

## Training

1. “Scouts should be taught/practice in a controlled environment (above ground) until adequately proficient at rappelling and ascending.”  
Rob Stilmar, Member Timpanogos Grotto
2. “If Scouts are being required to demonstrate a competence in vertical skills it is a reasonable assumption they will want to utilize this skill. If this is not provided in a controlled Scouting environment it will likely occur in an uncontrolled environment. Providing a training called Safe Scout Caving and leaving out a clearly needed skill set will likely create more of a liability and risk than providing the training.”  
Carson Mellott, Varsity Scout Coach
3. “They need some experience and have appropriate gear available to deal with problems that might arise with the kids while on-rope. Could they deal with someone who's 'stuck' on-rope without undue risk?” Rob Stilmar, Timpanogos Grotto member
4. “I think ascending with prusiks should be taught even for those lucky enough to have mechanical ascenders. After all, most cavers carry some in case of equipment failure or lost equipment.” Rob Stilmar, Timpanogos Grotto member
5. “I believe that many grottos will be more willing to help if they know how to help. Developing a template that gives them a 'roadmap' will go a long way in fostering a positive relationship.” Carson Mellott, Varsity Scout Coach
6. “I don't think a blanket policy of "no" or anything goes is a good idea. Adequate supervision and training is the key. Teaching respect for proper procedure is important too. But aren't they already part of the "climb on safely' procedures?” Rob Stilmar, Timpanogos Grotto member
7. “I see a difference between knowing how to do SRT etc and teaching it. When teaching the skill, one needs to anticipate the ways a student can make mistakes and be on guard for it and be able to recover from any problems they might get into. So I think the leader needs more experience than having just done it.”  
Rob Stilmar, Timpanogos Grotto member
8. “I tend to think that there should be a trail followed requiring knowledge and expertise in horizontal caving and experience in conservation practice prior to being involved in vertical caving.” Dave Shurtz, Wasatch Grotto member
9. “I don't have a problem with the scouts using prussic knots as I feel they are one of the safer methods of climbing. However, the scouts should have shown that they can climb at least twice as far in the light and on the surface in a controlled environment before they are allowed to use them in a cave.” Dave Shurtz, Wasatch Grotto member
10. “Also, when people begin vertical caving I think they should also have knowledge of self-rescue techniques so they don't become a liability to themselves and others. I

really tend to agree with the 18 year old line. We don't let younger kids (16 y.o. etc.) use machinery at work places until they are 18 - 21. This seems like a great place to apply that as well.” Dave Shurtz, Wasatch Grotto member

11. “If top roping is practical, proper belaying techniques/equipment should be used. Bottom belays on rappels should be used at the very minimum. No Hollywood style 'just a pair of gloves' belay. They also need to know it (*what they see in films*) doesn't work so they won't try it on their own and expect it to work.”  
Rob Stilmar, Timpanogos Grotto member
  
12. “I think groups should be sized so that waiting to get 'on-rope' doesn't create problems. I've seen most of my other concerns addressed in some 'youth caving' literature. Properly done and supervised, I don't think you would read about scouts getting into trouble in caves anymore than you do with them doing other things.”  
Rob Stilmar, Timpanogos Grotto member

### **Practice**

1. “I helped equip the Troop 55 (Hill Air Force Base) team for their caving adventures last year. I think they were a good example of how to go about teaching scouts to cave. They had responsible adult leadership that got proper outside consultants from local grottos. They trained and studied above ground before trying any underground work. This was a group of youth that belonged to this unit out of interest in its activities rather than where they lived.”  
Kim Hardcastle, Boy Scouts of America, Trapper Trails Council
  
2. “I quizzed one of the kids in the group Ralph and I took to a vertical cave before he went down the hole, and he said he had done about 30 rappels. As I said before, their ascending skills could have been better. Some needed a little help getting over the lip. Others had an awkward arrangement of their ascending gear so they were slow ascending. Getting everyone out in a timely manner has been a concern of mine. If it takes too long, someone may feel pressured and get careless because they might be late for a date or something. The group waiting can get cold and need health breaks (was a pee bottle part of the 'standard gear' list?) or wander off and get into trouble. Both Ralph and I had gear on hand to 'haul-out' anyone who couldn't make the climb and both of us know how to and have done pick-offs.”  
Rob Stilmar, Timpanogos Grotto member
  
3. “Vertical caving cannot/will not happen overnight and not likely in a month or two, but will be built up to over a year or so. Maybe the issue is how is it determined that the group is composed of experienced cavers before they enter a vertical cave.”  
Carson Mellott, Varsity Scout Coach
  
4. “I dropped in on the tail end of the varsity group at our last roundtable. (Mt Nebo district). They were talking about Antelope Springs cave. They had a trip there for the leaders about a year ago. I've been on a couple of Ralph's trips (Spanish Moss and

Blowhole) with the group from HAFB (varsity group 14-18). They had several varieties of ascenders from prusiks to petzls. I think they could have practiced more at their gym and had their 'frog' systems better tuned but their skills were adequate.” Rob Stilmar, Timpanogos Grotto member

5. “I learned vertical caving on prusiks as a scout a long time ago before racks and 8's. I don't see the use of prussiks as a safety issue. I had an ascender come off the rope coming out of *a cave with a 50-foot entrance drop*. I think that would be hard to do with a prussik. Ascenders are more efficient but since scouts shouldn't do long ascents; it shouldn't be a problem. The issued should be whether or not they know how to use their gear.” Rob Stilmar, Timpanogos Grotto member
6. “I've been *to a vertical cave* twice with some scouts. It was the same scout leader but different kids each time. We had taken them to a place up Diamond Fork to practice some rappelling/ascending and they had also done some practicing on a high swing set (10') before we took them to the cave. I think their leader had them practice some 'down climbs' and change over on the swing set for one of their activities when I wasn't present. I picked *a cave where* there wasn't much of a drop (20'-30'), there were suitable anchors....” Rob Stilmar, Timpanogos Grotto member
7. “We should never enable anyone to do vertical work until they know how to set up and do all these skills as well as equipment safety evaluation and system strength evaluation etc. etc.” Dave Shurtz, Wasatch Grotto member
8. “I do have to admit that I started my boys vertical caving at age 5 and 8 respectively and they did very well. However, this was under the direct supervision (one on one) of an expert vertical caver and I was always prepared to help them in any way needed. Both are now very proficient at the art of vertical work and know how to get un-stuck, change over and bypass knots with multiple systems. They are also proficient at several different kinds of repel devices and know how to tie and evaluate many different anchor systems.” Dave Shurtz, Wasatch Grotto member

## Risks

1. “The problem is not the activity, the problem is a lack of regulation and control over the activity.” Mikel B. Birch, Timpanogos Grotto member
2. “Surely, Scouts that can kill themselves in a horizontal cave, can kill themselves faster in a vertical cave – about 9.8 m/s<sup>2</sup> faster.”  
Jon Jasper, past President of the Timpanogos Grotto
3. “Almost any activity can be made to be reasonably safe in a properly regulated and controlled environment (sky diving, rock climbing, snake handling, etc.). The Council places the responsibility of regulation and control in the hands of the leaders. If leaders refuse to provide the regulation and control exactly as prescribed by the Council, an activity will no longer be able to be performed safely.”  
Mikel B. Birch, Timpanogos Grotto member
4. “Scouts can get hurt doing about anything especially if they think they can't get hurt or are careless. *A varsity leader I worked with* got to take a scout to the hospital after he wiped-out hiking (running?) down *a mountain* trail.”  
Rob Stilmar, Timpanogos Grotto member
5. “BSA likes 'top roping' (for belay) for climbing activities. I don't have any good ideas on this one because a lot caves don't lend themselves to shuttling the rope back down the hole for use by the next climber. It could work OK for rappelling into a cave but climbing out could pose problems for getting the rope back down the hole for the next climber without having it snag on rocks. I'd hate to see someone get hurt dealing with a snagged belay line when having one only marginally improves safety. Is the belay there in case the rope system fails or to arrest an uncontrolled rappel?”  
Rob Stilmar, Timpanogos Grotto member
9. “Most caves don't lend themselves to having the climber/rappeller under close supervision. They disappear in the dark or around a corner too easily.”  
Rob Stilmar, Timpanogos Grotto member
10. “The ones we are seeking to train ... "children/minors" are involved and liability issues go through the roof. Not to mention real-life concerns of the parents of said "children".” Ralph E. Powers NSS #37616
11. “Incidentally, my unit has been caving for over a year now, but with the influx of new youth and older youth moving on to are Venturing unit; I doubt I will ever take my unit vertical caving because of the constant training challenge I face.”  
Carson Mellott, Varsity Scout Coach

### Scout Leaders Comments

1. “Everything depends on the individuals.” Jon Jasper, past President of the Timpanogos Grotto
2. “The leader/supervisor needs to be competent on rigging/setting anchors.” Rob Stilmar, Timpanogos Grotto member
3. “In my humble and inexperienced opinion, it doesn't really matter whether you oppose or support vertical caving as long as you have *irresponsible* leaders who are demonstrating a blatant disregard for following the rules, regulations, and guidance of the Council.” Mikel B. Birch, Timpanogos Grotto member
4. “I see more problems with a leader not wanting to tell the 'weak/unprepared' scout that he can't come on an activity or setting prerequisites in order to go.” Rob Stilmar, Timpanogos Grotto member
5. “In *most youth* groups, they can't/don't screen the participants. On the other hand, I have a friend who was a scout leader of a group that included an autistic kid. I took him to *a popular local cave* to 'check it out'. He decided the one scout couldn't handle a cave *and* wasn't going to plan any activities that would exclude him so they didn't go.” Rob Stilmar, Timpanogos Grotto member
6. “Do they know their limits and when to abort a trip or call S&R?” Rob Stilmar, Timpanogos Grotto member
7. “As a Scout leader it is important for me to understand the perspective of cavers. We are working hard to overcome the disconnect between cavers and youth/scouting groups. I greatly appreciate *cavers'* willingness to help us in the development of a standardized program that the NSS can use with the BSA and other youth groups who desire to experience caving.” Carson Mellott, Varsity Scout Coach

Tier 3

Vertical Caving – Above Ground Training  
Outline In Development and Testing Process

### **Meeting One - Basic Vertical Skills Introduction**

Except for groups composed entirely of experienced cavers, the cave to be explored must not require the use of ropes, ladders, or other climbing devices. The safe use of these aids requires extensive initial training and practice under controlled conditions above ground, never in a cave. BSA Caving General Policy

Timpanogos Grotto suggests that before a youth group starts Vertical Training and because of the skill levels, specialized equipment and risks, above ground training will be offered to those between the ages of 14 and 18 who participated in Tiers 1 and 2 and have an experience record of 10 wild horizontal caving trips.

Sponsoring organizations of vertical caving experiences for their youth groups must be fully aware of the risks of these activities before they give their approval.

Objectives: The learning objectives listed for Vertical Skill Training.

Outline: Outline of topics, activities and materials.

Preparation: Suggestions for preparing the presentations.

Suggestions from presenters' experiences

Cavers Beware – it is risky enough to be involved with youth groups. Check with legal advisors before you teach young people vertical caving techniques. And be certain of your skills with changeover and self-rescue before taking young people under the age of 18 into vertical caves.

Because of the skill levels, specialized equipment and risks above ground training will be offered to those who have experiences with 10 horizontal caving trips.

Sponsoring organizations of vertical caving experiences for their youth groups must be fully aware of the risks of these activities before they give their approval.

### **Tier 3**

Vertical Caving – Above Ground Training  
Outline In Development and Testing Process

#### **Meeting Two – Basic Vertical Skills Above Ground Practice**

Except for groups composed entirely of experienced cavers, the cave to be explored must not require the use of ropes, ladders, or other climbing devices. The safe use of these aids requires extensive initial training and practice under controlled conditions above ground, never in a cave. BSA Caving General Policy

Timpanogos Grotto suggests that before a youth group starts Vertical Training and because of the skill levels, specialized equipment and risks, above ground training will be offered to those between the ages of 14 and 18 who participated in Tiers 1 and 2 and have an experience record of 10 wild horizontal caving trips.

Sponsoring organizations of vertical caving experiences for their youth groups must be fully aware of the risks of these activities before they give their approval.

Objectives: The learning objectives listed for the meeting.

Outline: Outline of topics, activities and materials.

Preparation: Suggestions for preparing the presentations.

Suggestions from presenters' experiences

**Tier 3**  
**Vertical Caving – Above Ground Training**  
**Outline In Development and Testing Process**

**Meeting Three - Basic Vertical Skills Above Ground Practice**

Except for groups composed entirely of experienced cavers, the cave to be explored must not require the use of ropes, ladders, or other climbing devices. The safe use of these aids requires extensive initial training and practice under controlled conditions above ground, never in a cave. BSA Caving General Policy

Timpanogos Grotto suggests that before a youth group starts Vertical Training and because of the skill levels, specialized equipment and risks, above ground training will be offered to those between the ages of 14 and 18 who participated in Tiers 1 and 2 and have an experience record of 10 wild horizontal caving trips.

Sponsoring organizations of vertical caving experiences for their youth groups must be fully aware of the risks of these activities before they give their approval.

Objectives: The learning objectives listed for the meeting.

Outline: Outline of topics, activities and materials.

Preparation: Suggestions for preparing the presentations.

Suggestions from presenters' experiences

Tier 3

Vertical Caving – Above Ground Training  
Outline In Development and Testing Process

#### **Meeting Four – Basic Vertical Skills – Above Ground Practice**

Except for groups composed entirely of experienced cavers, the cave to be explored must not require the use of ropes, ladders, or other climbing devices. The safe use of these aids requires extensive initial training and practice under controlled conditions above ground, never in a cave. BSA Caving General Policy

Timpanogos Grotto suggests that before a youth group starts Vertical Training and because of the skill levels, specialized equipment and risks, above ground training will be offered to those between the ages of 14 and 18 who participated in Tiers 1 and 2 and have an experience record of 10 wild horizontal caving trips.

Sponsoring organizations of vertical caving experiences for their youth groups must be fully aware of the risks of these activities before they give their approval.

Objectives: The learning objectives listed for the meeting.

Outline: Outline of topics, activities and materials.

Preparation: Suggestions for preparing the presentations.

Suggestions from presenters' experiences

## **Grotto Youth Group Liaison Officer**

### **Duties:**

1. Educate grotto members on the risks of working with youth groups
2. Become the spokes person for the Grotto's Cave Safely / Cave Softly Project
  - a. Give monthly reports on Youth Group Relations at grotto meetings
  - b. Create Public Relations Opportunities for Caving Safety
  - c. Participate in Regional Promotion of Cave Safely / Cave Softly Projects
  - d. Influence youth group caving policies and practices.
3. Screen requests for youth group trip leaders
  - a. Screening questions for youth groups
    - What training and experience does your group have?
    - Youth group approvals for caving are required- will you bring them?
    - Will you have parent permission for each participating boy/girl?
    - Will your group follow your organization's caving policies?
4. Coordinate Cave Safely / Cave Softly Project activities.
  - a. Create and update the Grotto's version (1.Grotto Name)
  - b. Recruit trainers for Cave Safely / Cave Softly Project
  - c. Link youth group leaders with grotto trainers
  - d. Get grotto members actively participating with youth organizations' risk management committees.

### **Initial Activities:**

1. Locate a youth group that wants to be trained.
  - a. Approach local youth group coordinators with what cavers can contribute to their risk management efforts.
  - b. Get youth group Caving Policy information.
  - c. Understand the youth organizations policies and guidelines.
2. Use the Cave Safely / Cave Softly Project (v 1.0) with a committee of three grotto members and add your ideas as you train the youth group members.
  - a. Start with one group.
  - b. Make the first group a grotto project.
  - c. Invite the youth group participants to grotto meetings to report on their progress.
3. Create a list of Grotto Trainers
4. Get an Attorney to speak at a Grotto meeting on the risks involved with leading cave exploration trips for youth groups.

## Next Steps and Improvements

### Next Steps:

1. Keep this project simple, specific, and meaningful.  
Caving organizations provide a forum for a ‘training template’ and avoid attempting to create an all-inclusive training program. Rather than holding a national dialogue on what is the best way to do it, allow grottos to take this project template and create their best way. Get organization members involved in creating a unique purpose center training project.
2. Distribute the Cave Safely / Cave Softly Project (v 1.0) to Cave Organizations  
Get this template into the hands of organizations and individuals interested in cave preservation and cave safety (cave owners, government agencies, education organizations) for their use, testing, and improvements
3. Establish a clearinghouse or houses for cave safety training.  
Provide centers for cave training within multiple organizations. Encourage intra-organization dialogue with regard to cave training and preservation.
4. Improve the meeting outlines.  
Put outlines into an educational format. Add Objectives, Methods, Background, Materials Lists, Procedures, Time Lines, Concepts Presented, Worksheets and Handouts.  
  
Include more conservation activities. Include cave mapping as an advanced meeting.  
  
Have participants report on reading and Project Underground and Exploring Caves and Karst activities.
5. Develop a Cave Safely / Cave Softly Project Trainer Training Program.  
Train grotto members how to teach safe caving skills, karst conservation, and cave preservation
6. Expand resources.  
Create innovative ways to disseminate cave exploration safety information. Publish ways to meet the need for training with limited grotto resources (time, talent, and dollars).
7. Format the document.  
Create HTML formats for organization websites. Type set the document into training and then a Trainer Training manual format.
8. Expand Grotto Position for Youth Group Relations.  
Improve the position description and activities of this grotto office.

9. Recognize and publish improvements at meetings and conventions.

10. Expand the library file.

The caving library for the Cave Safely / Cave Softly Project (v1.0) has scans of document examples (document covers, document source info pages, contents and a sample of text ) to encourage youth organizations to purchase the books. This could be a good one. This is one of the next steps to expand the project.

11. Create Public Awareness Press Kits for the project.

Media will cover a rescue and publish the results. Rarely do they cover what is being done to cave safely.