

## **National Speleological Society**

Office of the Administrative Vice President, Ray Keeler, VP

Education Division, Dianne Gillespie, Chair

Safety and Techniques Committee

**Report submitted 02/15/2010 to Dianne Gillespie by Aaron Bird, STC Interim Chair**

"The Safety and Techniques Committee (STC) promotes safe caving practices through the study and refinement of techniques, with a secondary emphasis on analysis of equipment. The committee works with grottos, government agencies, and National Parks on developing caving guidelines, hazard analyses, and accident investigation. Recommendations, results, and educational material are passed on to the NSS membership through the STC column in the *NSS News* and through workshops at the NSS Convention."

*Since previous NSS Board of Governors Meeting:*

### **I. STC Chair Position**

- A. In Fall 2009, former STC Chairperson, Kurt Waldron, decided to refocus his efforts on the Safety and Techniques Committee as a member, rather than as chairperson. Kurt is very busy with his important career work and wanted the STC to be as productive as possible.
- B. Kurt nominated Aaron Bird to be the STC Chairperson. Dianne Gillespie accepted this recommendation and submitted the nomination to Ray Keeler, Administrative VP.
- C. Aaron Bird was identified as *Interim Chair* of the STC in early 2010. A formal vote by the BOG is required to formally name a chairperson of this committee.

### **II. STC Membership Campaign**

- A. Aaron has initiated an outreach effort to increase membership and involvement of NSS members in the Safety and Techniques Committee
- B. A questionnaire was sent by email to NSS members listed as Grotto Officers on the NSS website, in the NSS Members Manual, and on NSS Grotto Websites. A secondary email was sent by Internal Organizations Chair, Keith Wheeland, to ensure full coverage of Grotto Officers.
- C. The key language of the message is: *"Our goal is to establish a network of knowledgeable, skilled, and experienced cavers who can help develop curriculum and training programs for cavers and non-cavers. We would very much appreciate it if you could please take a moment and complete the following short questionnaire regarding training and outreach for your grotto... Key outcomes we wish to achieve are reductions in injuries and fatalities, as well as expanding education on cave conservation, particularly in regards to White Nose Syndrome (WNS) among bats."* A URL was included with the email message that took volunteers to a web-based survey asking the following: 1. if grotto members had conducted community outreach programs, 2. if they

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had used formal curriculum for trainings, and 3. if they would like to be involved in STC activities in the future.

- D. As of 02/15/2010, there were 128 web viewings of the survey with 45 completed, many of which were from NSS members expressing personal and grotto interest for being involved in developing formal curriculum for safety, education, and conservation outreach.
- E. Analysis of questionnaires is not complete at this time. However, selected quotes from the feedback section are of potential interest and are included below.
- a. *"... often we only see new people one time and they never make a grotto trip. I don't know if they were expecting more than what we offer at a meeting..."*
  - b. *"Our grotto rotates membership very frequently so it would be hard to find someone to [participate in STC activities]."*
  - c. *"... the Vertical Section has lots of info but you have to sign up separately by mail, and some of their skills lists are pretty long. I'd like to see a basic one-pager that we can publish in the NSS News and every grotto can hand out and use, that clearly lists what skills and (appropriate for region) gear everybody should have before ever getting on rope in a cave, as well as several basic safety tips."*
  - d. *"I would oppose any idea of certification in caving skills per se. Things are very different from one region to another. The idea that you have to be certified to go caving could start bigger problems than it would cure."*
  - e. *"New cavers are not such a concern in our region... I would love to know they are being trained but not willing to simply devote time to non-cavers which will never be seen again."*
  - f. In regards to formal curriculum, *"...we refer to On Rope 1 and Alpine Caving Techniques a lot."*
  - g. Regarding conservation and cave closures, *"Out here in the West, WNS has not yet become a factor. With the latest push to close all caves to entry I would like to express one item: Most of our caves are located on BLM or public property and the majority of the local population would only be angered and spurred to continue what they consider their rightful use of those caves. In essence the government would be restricting the one group trying to educate [about] caves..."*
  - h. *"WNS is slowly killing our Grotto because we have nothing to offer newcomers. The old members are getting older and it's critical that we get new blood. The flow of new cavers has slowed to a trickle and our Grotto is running mostly on momentum. That will only last a finite time before we fizzle out as an active club."*

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### **III. STC Focus Areas as Defined by Current and Previous Boards of Governors**

**Note: The following is taken from the Board of Governors Manual.**

- A. *"The goal of the Safety and Techniques Committee is "Safety Through Knowledge". Activities of the Committee include analyzing and reporting accidents and near accidents, equipment study and testing, and development of safe caving techniques. (Act 91-330)*
- B. *III. The Safety and Techniques Committee of the NSS should be the repository for all information relating to caving safety, techniques, and equipment and is charged with the following activities and responsibilities:*
  - a. *(1) Provide assistance to internal organizations in regard to caving techniques, equipment, and safety considerations as requested, and in the establishment of grotto safety committees and educational programs.*
  - b. *(2) Upon request provide assistance and advice to other Society committees, activities, and programs in regard to caving techniques, equipment, and safety considerations.*
  - c. *(3) Prepare short articles on various caving techniques and/or equipment for distribution to the NSS membership; such activity should be coordinated through the Caving Information Series.*
  - d. *(4) Prepare slide show programs on various caving equipment, techniques, first aid, and safety considerations, with distribution to be coordinated through the Audio-Visual Aids Committee.*
  - e. *(5) Provide information concerning caving techniques, equipment, safety, and safety education to the membership upon request and through the NSS NEWS.*
  - f. *(6) Conduct valuations on existing and new equipment used in caving and report these evaluations in a clear, objective, and precise manner to the membership via the NSS NEWS.*
  - g. *(7) Collect, catalog, and evaluate reports of caving accidents, equipment failures, and similar phenomena; provide non-anonymous information to the Editor for publication in AMERICAN CAVING ACCIDENTS; and, at the discretion of the Safety and Techniques Committee Chairman, report or publish such information through other outlets.*
  - h. *(8) Maintain and develop a repository of knowledge and information concerned with caving safety, techniques, and equipment, and conduct research on the improvement of existing caving equipment and the development of new caving techniques and educational methods.*
  - i. *(9) Work with equipment manufacturers and distributors to mitigate or eliminate safety hazards of equipment."*

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### **IV. Recent Fatalities in American Caves**

There have been two tragic deaths in US caves in the past few months. The first was in Nutty Putty Cave, Utah, where John Jones became stuck in a down-sloping squeeze passage and died on November 25, 2009 after nearly 24 hours of trying to get out with assistance from cave rescuers. His body remains in the cave. Nutty Putty Cave, which was a very popular wild cave in Utah, was declared a tomb by local officials and has been sealed shut with concrete. The second death occurred in Sloans Valley Cave, Kentucky, where Steven Troxell fell into a pit on December 16, 2009. His body was recovered the next day by cave rescuers.

a. It is of note that both individuals were new or non-cavers. Both were caving with friends and family members whose caving experience was likely limited. Also of note, both tragedies may have been averted with simple steps, such as basic training in caving skills and information about the hazards of the caves. Would it have been helpful to have had signage or registers in the caves near these hazards?

b. A review of the NSS Accident and Incident Reports from 2007, 2008, and 2009 -to date- shows a number of fatalities by both cavers and non-cavers in both air-filled and flooded caves. Most of the fatalities are divers in Florida springs and caverns, however, one drowning death was in a Texas cave by the owner/operator of the commercial enterprise Cave Without a Name.

c. Details of the fatalities are typically limited and available through cavechat links to news articles.

d. Over this time period, there have been many more injuries than fatalities in US caves. There have probably been many, many more near misses. It may be useful to conduct more analysis of injuries and begin collecting data from *near misses*. Perhaps an online survey or reporting tool could be used for getting information about near-miss events.

### **V. Education Division Session at 2010 NSS Convention**

Some ideas for topics in the STC portion of the session may include:

- a. Cave-skills training/workshop presentation methods for non-cavers
- b. Overview of cave-training efforts in the US and internationally
- c. Motivators for unified and collective cave-skills training programs

### **VI. Proposed: Models for cave-skills training**

To reduce the probability of cave-related injuries and fatalities, research has been done to learn about the structure, materials, and operations of successful models of cave-related training organizations.

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- a. In the US, a very successful model is that employed by the National Cave Rescue Commission of the NSS. This organization's primary purpose is to "...train and track cave rescue resources throughout the United States....The main focus of the NCRC is development and maintenance of a national curriculum in cave rescue operations. It maintains a cadre of qualified cave rescue instructors, who help it deliver cave rescue educational programs at the national and regional levels, in a variety of formats."
- b. Outside of the US, very well developed models for cave training exist in the United Kingdom, France, and Austria. Each of these countries has multiple courses in various levels of cave-skills training and cave-rescue training.
- c. Curriculum used by the British Caving Association is available on the web at <http://www.british-caving.org.uk/?page=7>
- d. There are many others who also conduct cave-skills training based on the BCA LCLMA model, such as Apex-> <http://www.mountainleadercourses.co.uk/Introduction-to-the-LCMLA.php>

### **VII. Proposed: Possible Agenda Items for STC Conference Call**

- a. Addressing deaths and injuries by non-cavers in US caves
- b. Education Division Sessions at 2010 NSS Convention
- c. Training approaches for cave-skills development courses
- d. What models already exist for a national-level cave-skills course?
- e. Are UK or Austrian cave-training models applicable to the US?
- f. Increase membership in NSS through cave-skills training offerings
- g. Tentative date for STC conference call – January 20, 2010
- h. Need to investigate options for conference call or online meeting
- i. Karst Information Portal

### **VIII. Proposed: Karst Information Portal as repository for STC-related materials**

- a. "The Safety and Techniques Committee of the NSS should be the repository for all information relating to caving safety, techniques, and equipment..."
- b. At November 2009 BOG meeting, Todd Chavez was approved as NSS President's liaison to the Karst Information Portal.
- c. An effort should be made to identify all cave-safety and techniques related articles, books, and publications. Meta-level data keywords can be placed with the citation to indicate it is a cave safety-related document.
- d. Many issues of the Nylon Highway are available to NSS Members on the NSS website.