



THE  
**NATIONAL CAVE RESCUE COMMISSION**

*of the*

NATIONAL SPELEOLOGICAL SOCIETY, INC.

*presents*

***Cave Rescue***

***Operations and Management Seminar***

***On the Web at: NCRC.info***  
***www.fepur.org***

**MARCH 27 – APRIL 3, 2010**

*at*

**CAMP CROZIER**

**ARECIBO, PUERTO RICO**

*With the cooperation and assistance of:*  
**Federación Espeleológica de Puerto Rico (FEPUR)**  
**and Rio Coop**

*About the Seminar*

This seminar consists of extensive classroom and fieldwork in all phases of cave rescue including underground environment, vertical rescue, hauling systems, extrication techniques, medical management, communication systems, and the organization and management of cave rescue operations. Basic and advanced course material is presented for students who typically include cavers, emergency services personnel, and emergency managers.

The seminar provides approximately 100 hours of instruction over eight days. Its classes are physically strenuous and participants must be in good physical health. Students should be prepared to work in difficult situations, both above and below ground.

NCRC requires participants in its seminars to possess certain skills as prerequisites. Each student must demonstrate his or her ability to ascend (on rope), change over, rappel part way down, tie off their descender, then rappel safely to the ground as part of initial check-in skills. Students must also demonstrate proficiency with the basic knots and hitches used in cave rescue. Students in Level 2 will additionally be required to demonstrate retention of key skills learned in the previous level as a prerequisite for participation in the next level. Those lacking the necessary skills will have the option to withdraw from the course or repeat a previous level. Information on specific prerequisites will be provided upon registration, or may be found on the NCRC website.

Participants must review and sign a liability waiver at check-in registration. (Persons under the age of 18 may be permitted to participate in the course but must contact the registrar prior to registration concerning specific rules and restrictions.)

*Courses Offered*

**LEVEL 1** teaches current cave rescue and emergency management techniques, and provides instruction in cave environment, medical considerations, basic rope work, litter rigging and transport, and incident command systems. It is specifically designed to meet the various needs of agency personnel with little or no cave-related experience, and cavers with little or no rescue or medical experience. Level 1 prepares students to function as cave rescue task force members.

**LEVEL 2** prepares students to function as cave rescue task force leaders. Participants in Level 2 must have successfully completed an NCRC Level 1 course within the past four years, and must demonstrate retention of key Level 1 exit skills. Students are taught more advanced techniques in medical management, vertical and horizontal rescue, team leadership, and incident management. The course is heavily oriented toward vertical rescue in the cave environment.

**VERTICAL SYSTEM WORKSHOP (Optional):** This is your opportunity to practice personal single rope technique skills prior to entry testing, and to prepare yourself for a more productive NCRC experience. Build and adjust a safe, functional climbing system; fit and fine-tune your existing system; work on ascending techniques; and practice changeovers. ***This optional session is open to all registered students on Friday evening before the seminar.***

### *Personal Equipment Requirements*

#### **CLIMBING HELMET**

UIAA or CE approved mountaineering style helmet with a three or four point suspension, and a non-elastic chinstrap

Must be a complete working system with at least two points of gripping attachment connected to the user's seat harness

#### **THREE SOURCES OF LIGHT**

All must be capable of allowing you to exit the cave. At least two should be electric and two should be helmet-mountable.

1. An additional mechanical ascender or prussic must be available for crossing knots, etc.

2. One of the system's mechanical ascenders **must be functional as a Quick Attachment Safety (QAS)** for work positioning and fall prevention

#### **BOOTS**

Sturdy, rubber soled

#### **GLOVES**

Must have leather palms and full fingers

#### **RUGGED CLOTHING (see clothing note below)**

#### **WET SUIT & PERSONAL FLOTATION DEVICE**

#### **SIX LOCKING CARABINERS**

These must be independent of your ascending or descending systems

Required for Levels 1 and 2 (polypropylene or Lycra acceptable)

#### **DESCENT DEVICE**

Any of the following four devices are acceptable:

1. A standard rack
2. A three-bar Micro rack with a hyper-bar (4 bars total)
3. A bobbin-type descender with off-set or safety carabiner
4. A "Rescue Eight" with ears

#### **WATER BOTTLES**

Two quarts recommended

#### **SMALL, PERSONAL FIRST AID KIT**

Required

#### **SMALL, HEAVY-DUTY PACK**

Used to carry personal gear around underground

#### **SEWN SEAT HARNESS**

#### **2 – 20 FT PIECES OF 1-INCH TUBULAR WEBBING**

#### **ASCENDING SYSTEM**

- All personal equipment must be in safe, usable condition and marked to identify the owner. Equipment deemed unsafe or unacceptable during check-in must be replaced prior to the student's continued participation in the course.
- Students in Levels 1 and 2 must arrive prior to the start of the seminar at 8:00 a.m. on Saturday 27th, 2010. Registration will be open on Friday evening and Saturday morning (details will be provided upon registration).
- All students who are **current members** of the National Speleological Society have a \$25.00 discount to their registration fees.
- The optional Vertical System Workshop will occur on Friday evening, Friday 26th, 2010; from 7:00 to 10:00 p.m. Participants must be registered for the seminar.

#### **Getting to the Seminar**

The City of Arecibo is on the north of the island of Puerto Rico. The training facilities are located in a decommissioned Peace Corp camp (Camp Cozier), now administered by Cooperativa Hospederia Bosque Rio Abajo (hereinafter Rio Coop). San Juan International Air port (SJU) is 90 minutes away and is served by AA, Continental, Jet Blue and several regional and cargo companies. Car Rental service is available at airport. Take Exit 75B (Utuado) on Highway 22 West, then follow Rd. 10 South and exit on Rd 621. A map will be posted at [www.fepur.org](http://www.fepur.org).

#### **Meal Plan**

A meal plan is included with the seminar registration. It will offer three hearty meals per day, beginning with dinner on Saturday the 27th and concluding with breakfast on Saturday the 3rd. Spouses and/or other traveling companions may purchase the meal plan separately. If you have special dietary needs (vegetarian, diabetic, etc.) please note these on your registration form.

**Lodging**

Rooms (6 to 15 people capacity, military cots) with shared showers (no hot water) and bathrooms are included in the seminar registration fee. Camping allowed (10 minutes away from training site, by car). For accompanying non-students there are hotel & motel rooms available at a modest fee (*ask for info.*) Persons who prefer a motel must make their own arrangements. A list of nearby motels (1-10 miles) is available upon request.

**Environment/Area/Caves/Clothing**

Daily high temperatures in Puerto Rico can be expected to average 80 to 90° F with occasional showers. Relative humidity will be 60 to 80 percent. The elevation for the practice area is 1100 feet above sea level. Be prepared to hike to caves through heavily vegetated areas with poisonous plants (fireman's ash) and mosquitoes. Long pants, short/long sleeve shirts, hats, sunscreen, sturdy boots, and plenty of water are recommended for comfort and safety during outdoor activities.

Cave temperatures average 68-72 degrees Fahrenheit and are frequently wet and muddy. It may be necessary to swim on certain caves, so bring your personal floatation device. Rugged clothing (caving coveralls or caving pants), kneepads, sturdy boots, and adequate gloves are recommended.

**If you have questions about the seminar or need more information please contact:**

Cristobal Colon, Registrar  
Phone: **787-646-9654**  
email :cristobalcolon@hotmail.com

Steve Segal, Course Coordinator  
Phone: **787-308-2175**  
email : segal3@hotmail.com

# NCRC SEMINAR 2010 REGISTRATION

Please type or print legibly – Use one form per person – Detach and mail with payment

Name: \_\_\_\_\_ National Speleological Society Member #: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZipCode \_\_\_\_\_

Home Phone: (     ) \_\_\_\_\_ Cell Phone: (     ) \_\_\_\_\_

E-mail address: \_\_\_\_\_

Agency/Grotto/Org. \_\_\_\_\_ Affiliation: \_\_\_\_\_

How Long? \_\_\_\_\_ List any dietary or health considerations we should know about:  
\_\_\_\_\_

How many non-students in your party? \_\_\_\_\_

Level you are registering for: (Check one)

- Level 1
- Level 2 (When & where did you complete Level) \_\_\_\_\_
- Vertical Workshop (free). What type of climbing system do you use? \_\_\_\_\_

**Remember – if you are not 18 years old you must contact the registrar before registering.**

## REGISTRATION FEES

**REGISTRATION (includes meals and lodging)** **\$425.00** \_\_\_\_\_

**NSS FEE deduction (for students current members of Nat. Speleological Society)** **\$ 25.00** \_\_\_\_\_

**LATE REGISTRATION FEE (postmarked after March 20<sup>th</sup>, 2010.** **\$ 50.00** \_\_\_\_\_

**EXTRA MEAL PLAN (non-students) Number of Extra Meal Plans \_\_\_\_\_** **\$140.00/ea** \_\_\_\_\_

**2010 SEMINAR T-SHIRT Optional (Please indicate quantity and size below)** **\$ 12.00/ea** \_\_\_\_\_

\_\_\_  Small \_\_\_  Medium \_\_\_  Large \_\_\_  X-Large \_\_\_  XX-Large (**add \$3.00 per XXL shirt**)

**TOTAL REGISTRATION & FEES DUE \$ \_\_\_\_\_**

Mail Registration & Fees

**Cristóbal COLON  
REGISTRAR**

P. O. Box 192651  
San Juan, Puerto Rico  
00919-2651

### NOTES:

No refunds after March 22<sup>nd</sup>, 2010. 25% cancellation fee after March 20<sup>th</sup>, 2010

**Make checks for TOTAL (above) payable to: NCRC PR**

No personal checks accepted after March 12<sup>th</sup>, 2010.