INSIDE THIS ISSUE:

Making the “Holy Grail” Connection: Mexico’s Gran Acuífero Maya Project

Realigning Training Requirements for Cave Divers

A Look at the 2019 International Cave Diving Conference

Abe Davis, Nicholson, and Exley Awards Presented
DEMA 2019
ORLANDO, FL

by Renée Power

DEMA is right around the corner…literally! DEMA is Diving Equipment and Marketing Association. If you’re an industry professional, this is your time to come and inquire about the latest and greatest in diving products, education, safety, and travel. You can purchase passes at www.demashow.com.

NSS-CDS members have joined forces to staff our booth. This year’s show will be held at the Orange County Convention Center West Concourse in Orlando from November 13-16, 2019. The NSS-CDS booth is upping its game with new merchandise, new training, and a new look. A big shout out to everyone who’s volunteering time to support our organization at this annual industry event. Please stop by booth #2621 in the Technical Diving Resource Center.
contents

featured stories

Cave Diving’s Holy Grail: The Sac Actun-Dos Ojos Connection

By Barbara Dwyer with Robbie Schmittner.................................6

A Fresh CDS Logo and Website

By NSS-CDS Training Committee...............................................17

Tales from the Back of the Cave

By Mark Long..............................................................................14

2019 International Cave Diving Workshop Wrapup

By Barbara Dwyer.......................................................................15

In Memoriam: Steve Boyer

By Brent Booth.............................................................................20

columns

From the Chairman

By TJ Muller...............................................................................5

Exley Award Dive Report

By Phil Short..............................................................................16

Training: A New Path to Cave Diver Certification

By Reggie Ross...........................................................................18

Milestones: 2019 Cave Diver Awards

By Brett Floren...........................................................................22

Instructor List .............................................................................23

Cover Photo: ©Kim Davidsson. Katy Fraser swims in Sac Actun
Dear friends old and new,

It’s a great honor to be serving as your current Underwater Speleology editor. I’ve enjoyed collaborating with many of you during the years I’ve written for UWS, and I look forward to working with many more. Please share your thoughts about what you’d like to see in these pages. It is your member magazine.

My first full issue is dedicated with gratitude to outgoing editor and board chair Cheryl Doran. Cheryl has patiently put up with me over the last two months as I learn to use the computer programs that format the magazine for publication. It’s a learning curve, so please bear with me.

Few people tell better stories than do cave divers. Everyone is welcome to contribute adventures, explorations, tall tales, and discoveries. There’s new cave being explored in Florida, Europe, Mexico, Russia, South America, and elsewhere. Share your stories, photos, and new maps if you’re involved. Tell us about pushing the passage you thought had pinched out or about finding an overlooked lead. Exciting dive reports or close calls/lessons learned all have something to teach us. Please keep the stories, photos, and maps coming.

The magazine could use a few hands and pairs of eyes. I’m looking for a proofreader and copy editor. These positions could involve writing and/or rewriting of stories for the right person. If you are a journalism student or want to build your résumé, this is an opportunity. I’ll be happy to work with you and to show you the ropes. I’d welcome a photography editor because that is my weak suit. Finally, if you’d like to contribute to regular columns (rebreathers, conservation, training tips and techniques), please let me know. You will get to talk with some adventurous and interesting people, make new friends, and see cave diving from many points of view.

You can reach me anytime at cavedivingwomanSF@gmail.com. ‘Looking forward to seeing you at DEMA and around the springs and cenotes.

Barbara
First, I'd like to say that it has been an honor to be chosen to serve as the chairman of the NSS-CDS; giving back to the community is very rewarding at a personal level. Second, it's a good time for the NSS-CDS in general. We are now solvent, and we are strong with robust membership numbers. At this point, the CDS should be around for a long time.

The previous board protected our properties by ensuring that we will not have to go through another lawsuit like we did with School Sink. There have been a few recent events of note, and I can see some refreshing changes coming our way. I feel that this new board has a lot of potential.

- Thanks to Brett Floren, our Vice Chairman, we’ve gained an annual grant of $5000 for use of the Azure [cloud computing] platform. This will allow us to bring in house all of our IT hosting and credit card processing, etc. Because we are a volunteer organization, we had a hodgepodge of different platforms. But thanks to Brett and his 35+ years of IT experience, the CDS will be modernizing its IT structure to better serve the members, certified divers, and award recipients.
- Grant funding will also allow us to advertise with Google for about $100,000 worth of advertising a year — again thanks to Brett Floren.
- We’ve freshened up the CDS logo and our graphics so that they will better suit a digital media format. Many thanks to Harry Averill for working hard on that. This will also tie into the new Azure platform.
- We’ve updated our training standards to better suit new divers. Thanks to Reggie and the training committee for moving us forward on that.
- Thanks to Renée Power for designing a new line of women’s shirts for members and for spearheading volunteers for DEMA outreach. I hope to see all of you there.
- I would also like to thank Brett Floren for getting the CDS the GuideStar Bronze Seal of Transparency. This means we are a nationally registered 501(c)3 charity and allow us to receive Amazon Smile contributions, among others. It took a long time to achieve this, and it will benefit the CDS for years to come.
- We should all thank Forrest for his many years of service to the NSS-CDS. He always had what he felt were the best interests of the CDS at heart. We wish him all the best in his new ventures.

In addition to the successes and kudos, we also face some challenges and opportunities for further enhancement. We’re negotiating with the county on the conservation easement for Alachua Mill Creek Preserve, as well as for potential new development above the upstream tunnel. Looking forward, I’d like to see the NSS-CDS add new sites to enhance member value by allowing divers to access new caves. We are also discussing a Mexico conference.

I know I would like to go and see some cenotes.

It’s been a great year for the NSS-CDS, and it’s only going to get better. I am looking forward to seeing everyone in person at the winter workshop, where we’ll have our final board meeting of the year. And finally, I want to give a big shout out to Brett Floren and Adam Hughes for stepping up and chairing the 2020 International Cave Diving Conference, which will be held in Lake City.

Warmest regards,

TJ
Last year, divers of the Gran Acuífero Maya¹ Project connected the Sac Actun and Dos Ojos cave systems near Tulum on Mexico’s Yucatán peninsula and established the record for the world’s longest underwater cave (353 km/219 miles). GAM exploration director Robbie Schmittner has been seeking this link for nearly 15 years. UWS sat down with him to talk about the project.

—Editor’s note

Robbie, you’ve been diving in Tulum for more than 20 years. When did you start looking for this connection?

Gunnar Wagner and I started exploration at the Tux Kubaxa and the Dos Pisos systems in 1999. I remember lying in our hammocks out in the jungle, talking about how Tux Kubaxa might connect to Dos Ojos and then to Sac Actun, all the way down to the city of Tulum. Even as we were just kidding at the time, there was a wish this idea could become true one day.

In 2003, I focused on the Sac Actun system. I concluded that several systems should connect, based on my knowledge of the systems and general flow direction. Bil Phillips, who with Dan Lins had just connected the Sac Actun and Naval systems, joined me. Continuing where the first generation of explorers left off, we squeezed through restrictions to find more cave and links to outlying systems. Our first connection was between Sac Actun and Naval downstream. The Temple of Doom and the Abejas systems followed. The 2007 connection of Sac Actun and Nohoch Nai Chich made Sac Actun the world’s largest underwater cave at 155.4 km/97 miles for the first time. Ox bel Ha surpassed it in length just two weeks after our connection.

Who was on the exploration team with you?

Marty O’Farrell, Jim Josiak, and Sev Regehr were the regulars. Guillermo de Anda² headed up the anthropological identification. All of us dived the whole year, exploring almost on a daily basis, except Guillermo. He came in to sight the archeological finds and register them.

How did the Gran Acuífero Maya project (GAM) get started? At what point did INAH³ get involved?

Guillermo de Anda, Karla Ortega,⁴ Bil Phillips, and I founded GAM to finally have explorers and scientists

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¹ Great Mayan Aquifer
² Director of GAM, cave archeologist, INAH investigator, National Geographic Explorer, and cave diving instructor
³ INAH: México’s Federal Instituto Nacional de Antropología e Historia (National Institute of Anthropology and History)
⁴ Director of communication and logistics
working together. Explorers find all this amazing stuff, and scientists actually know about it and can study it. Previously the relationship between explorers and scientists had been somehow damaged. It was the first goal of GAM to fix this relationship, do great explorations together, and have them well documented scientifically. Guillermo presented the project at INAH headquarters. They loved it and approved it.

You came close to connecting Sac Actun and Dos Ojos once before.

Yes, in 2008 Steve Bogearts and I got very close. According to our maps, we were missing only five feet to unite the two systems! So, one day we timed our dives. Steve started from the Dos Ojos side, and me from the Sac Actun side. We planned to meet at the possible connection point hoping we could see each others’ dive lights through a crack in the wall. Or perhaps sediment could be stirred up by one diver and carried with the current to the other one. Unfortunately none of this was happening. But I was able to hear Steve on the other side of the wall. We never found the connection there!

So how did you organize the final push?

In 2015, Bil Phillips and I put a new team together. Further out into the jungle was where we had to go. We had to carry our gear 5 km through thick bushes to reach a “new” area of exploration, where we had found 15 virgin cenotes. The first five cenotes did not go anywhere. Frustrated, we abandoned the area for the next two years. But I never forgot about the other ten cenotes, sitting out there, waiting for us to come back!

Bil and I returned to these in 2017 with a new constellation of exploration divers. By then, Bil didn’t feel strong enough to do the daily hiking into the jungle, so he took care of data collecting and mapping. Next to the ten cenotes we had left untouched, we found another amazing one. We called it the “Mother of all Cenotes” (MOAC). It is a huge cenote with an enormous dry cave room, half filled with an extensive lake in it. The underwater cave entrance is the biggest I have seen in this region. All cenotes ‘must’ have been born here! We quickly decided to position our exploration camp there.

The team worked hard from the beginning of March till November, alternating dive days. We found a little over 18 km of new passageways. The “downstream” section of the MOAC cave was splitting up, and two “power cave” branches headed directly towards the Sac Actun and the Dos Ojos systems — right toward the “Holy Grail” connection. But about 40 meters before getting to Sac Actun and 60 meters from Dos Ojos, our way was blocked by breakdowns.

We spent all of November and December trying to get past those breakdowns, performing dives up to six hours, squeezing into small cave, poking and probing, all without success. I even released a bag of glitter hoping I could find some of it on the other side, inside the other system. We tried everything!

“Go out there and connect these f***ing caves!” were Bil Phillips’ last words to me. Bil left our exploration team forever at the end of November 2017. This day we lost a great explorer, and I lost a friend—one of the two or three real ones you have in life.

The connection didn’t happen from the MOAC side, so we started diving from Sac Actun and Dos Ojos, pushing toward MOAC. One day I was cutting a jungle path to get to a cenote located within Dos Ojos. I stumbled over a small unknown chimney-like cenote. We built a ladder to get down to the water. A nice-size dome room, which we named Tatich Kep, opened up at the bottom of the shaft. Performing one dive only, we were able to connect to the Sac Actun system. Our survey data showed that we were also very close to the Dos Ojos system already.

© INAH: Instituto Nacional de Antropología e Historia, México. Mask of Mayan god of commerce found in Sac Actun.

© Brian Wiederspan. The moment of connection. Robbie approaches from Dos Ojos (left), while Marty O’Farrell and Jim Josiak swim from Sac Actun (right side).
In a few more dives, we reduced the distance between the systems to 26 meters. We searched meticulously for any possibility to head north, where we knew the closest lines of the Dos Ojos system must be located.

When we spoke last year, you said that you were nowhere near the connection. What happened?

At the end we found the connection between Sac Atun and Dos Ojos directly. At the end of one dive I found a small hole, maybe a meter wide and 30 centimeters high. Current pulled strongly into the hole, but I was at the end of my dive and could not risk anything. So I cut a few meters of line off my exploration reel and dropped it in front of the hole. The current pulled the loose line straight into the hole.

I started my next dive from the Dos Ojos side, following a line I installed in 2011, to search where the current would come out. It disappeared into the hole at the other side. About 50 minutes into my dive I found a crack in the wall. Water was pumping out of it. After an unsuccessful attempt to find a bigger opening, I decided to dive into the small lead.

About a body length inside the crack I had to remove my first tank and place it in front of me to go on. My feet were still inside the restriction when I was faced with an even smaller restriction. This forced me to take my second tank also in front of me. Passing through I found myself in a narrow passage that was all blocked by dripstone formations. I turned my head to the right and saw the loose line that I had dropped on the Sac Actun side, dancing up and down in the current, beneath a natural rock shelf!

The final dive to establish the Holy Grail connection was conducted by the whole team. Marty O Farrell and Jim Josiak entered from Tatich Kep (Sac Actun). I started from the Dos Ojos side. We decided to use Bil Phillips’ favorite exploration reel to install the last bit of line to unite the caves. Marty carried Bil’s reel to the restriction and passed it through. I received it on the other side.
and brought it back to the surface with me. We dedicated this achievement to our friend and mentor and would like it to be known as the “Bil Phillips connection.”

https://vimeo.com/255220468/cf05d7b34a

Tell us about your archeological finds.

As of now we know of 248 cenotes that are entrances to Sac Actun. We identified nearly 200 archeological sites, and about three quarters of these appear identified with the Mayans. There are burnt human bones dating back at least 9000 years in at least two sites. We found skeletons of extinct animals, including the giant sloth, bears, gomphotheres (an extinct elephant-like creature), and more. Some sites contained Mayan pottery. At one we discovered a shrine to the god of trade. The scientists are excited and hope that these discoveries will provide information about the Maya’s customs and rites. Guillermo [de Anda, PhD] believes that Sac Actun is the most important submerged archaeological site in the world. It contains more than a hundred archeological contexts, including evidence of the first settlers of America, of extinct fauna, and of the Maya culture.

What other discoveries have you made along the way?

I was able to connect Aktun Hu and Caracol Cave to Sac Actun in 2011. This added 33 km to the total length of the system and pushed Sac Actun for the second time to the world’s longest water-filled cave record. The link to Aktun Hu was an amazing find. Hoyo Negro (“black hole”) is a huge sinkhole inside the passageways, which contains a significant amount of remains from the last ice age. The MCEP/GUE team made a great discovery, the human skeleton of a young girl who they named Naya.

Did you have leads that proved false but led to other passage?

Sure. Back in 2015 we moved to a new “virgin” area north of Sac Actun, in the White River area, west of Dos Ojos (Conch Hope) and southeast of Koox Baal (Tux Kupaxa area) with the hope that all three caves would connect. This is where we had found the virgin cenotes but none of the first four had “going cave.” Really frustrating! So we abandoned the area. But I always thought “you have to go back out there!” In 2017, I went back and found a looooooot of cave! We explored over 18 km of new passage way split in three different systems:
Red Pool, Cenote de los Metates, and the Mother of All Cenotes (MOAC). The caves grew bigger and bigger and closer to each other every day, and they grew towards the three giants surrounding them.

MOAC is missing 700 meters to connect to Koox Baal on the north side, 40 meters to connect to Sac Actun on the south, and 60 meters to connect to Dos Ojos to the east. But it did not come together. Desperately we started diving from Dos Ojos and Sac Actun, pushing exploration towards the new systems. Red Pool, Cenote de los Metates, and MOAC remain unconnected. So you could actually say our whole year’s work was “false” leads (laughs). But it is new cave, wonderful cave, artifacts, and our next connections.

Our exploration keeps going deeper into the jungle, which means hiking more gear for longer distances. For the northwest cenotes, we use 30 tanks per day. As the caves got deeper this meant hiking in two compressors, scooters, rebreathers, and more gear even farther in. It’s totally worth the effort, as there are some gorgeous cenotes and caves. Three in particular are pushing close to each other, including a new one, Burning Wasp, and even moving toward O’Ho Tucha (Vanilla Sky Project 2018) and the MOAC system.

Burning Wasp is enormous. On a preliminary look-see dive, I found a nice room with two possibilities for exploration. I went left, and it opened into a big borehole tunnel. I went around a corner and there were two tunnels, one to the right and one to the left. We found lots of power cave - big passages 40’ - 60’ wide with an average depth of 60’-70’. That is when we started hiking in the rebreathers and scooters. The rebreathers allowed us to shorten decompression times drastically.

Is the connection site open to other cave divers?

These cenotes are not easily accessible. Divers would need to hike in 2-5 km hauling all equipment. Permissions of land owners would need to be requested.

So what’s next?

Our team is back out in the jungle. We’re working on connecting the Ox Bel Ha system to Sac Actun. We’ve found gorgeous cave with artifacts and possibly our next connections. The Yucatán peninsula still hides an incredible amount of treasure for science and
and incalculable potential for exploration. We’ll keep exploring!

Making the Sac Actun-Dos Ojos connection was an effort of more than 20 years, traveling hundreds of kilometers of submerged caves in Quintana Roo. I dedicated more than 14 years to exploring this monstrous Sac Actun system. Now, we all need to conserve it.

Robbie Schmittner is an underwater cave explorer. He lives and dives in Tulum, Mexico.


Robbie swims amid the spires and artifacts in Sac Actun.
A few months ago, Renée Power messaged me asking if I would participate in a panel discussion. This was going to be a Friday night event, along with a social kicking off the NSS-CDS International Cave Diving Conference to be held in Lake City, FL, on Memorial Day weekend. The panel would consist of people considered to be “legends” of the cave diving community.

Of the eleven individuals pictured below, some began cave diving in the 1960s. Others started during the ’70s and a few of us in 1980 or ’81. Combined, these guys have made (conservatively) more than 25,000 cave dives. They are also responsible for the original exploration of hundreds of miles of underwater caves mostly in Florida and some in other states and other parts of the world as well.

I’m very proud of the fact that in a 39-plus year cave diving career, I’ve made numerous cave dives with all but three. In the case of Tom Morris, Woody Jasper, and Lamar Hires, we’ve made hundreds of cave dives collectively as they were some of my primary diving buddies.

I feel quite honored and privileged to have been invited to be a part of this group. Father Time finally catches up with all. None of us do the dives we did back in the day that were considered “out there” and on the cutting edge. There are new generations of cave divers doing dives we could only dream about. It’s a nice feeling to know that in our prime, we were considered some of the best.

Thank you, Elisha Bragdon, for taking this picture.
The 2019 NSS-CDS was held over the weekend of May 24th-26 at Lake City, Florida’s National Guard Armory.

The traditional and well-attended Friday night social kicked off the event. Renée Power and her scarlet-shirted “Cavenger” volunteers kept people fed and the beer flowing. A hearty thanks to Dive Rite for sponsoring the food and to Lake City’s Halpatter Brewing Company for the beer and ale.

The social’s high point was a round table discussion featuring many of our legendary “old timers” recounting their “tales from the back of the cave.”

Saturday morning brought coffee and breakfast courtesy of Lake City Dive Shop. Paul Heinerth graciously emceed—he always does a fine job of organizing and introducing the expert speakers. State geologist and FL Geological Survey director Jon Arthur, PhD, briefed us on the aquifer’s health. Derek Covington, MD, discussed immersion pulmonary edema (IPE) and whether exposure suits play a role. We heard about what lies beyond the Eagle’s Nest restriction from Frank McNamara. Senior hydrogeologist Fay Baird discussed interaction between the Floridan Aquifer and North Florida’s Suwannee River, then Florida A&M’s Dr. Tom Sawiki talked about amphipod diversity in the Floridan Aquifer. Wrapping up the day, Edd Sorenson told us about some of his rescues and recoveries, how recreational cave divers should respond if confronted with a missing diver, and what goes into recovery diver training.

The new NSS-CDS Board held a general meeting after Saturday’s events. Member attendance could have been better.

Sunday was free for diving and included guided dives and opportunities to check out various rebreathers and DPVs. All in all, it was a very successful conference!

The NSS-CDS Board and members greatly appreciate our sponsors’ and donors’ support and generosity.

A heartfelt “thank you” to all, including:

Cave Adventurers
cavediving.com
Dive Rite
Lake City Dive Center
SDI-TDI
Golem Gear
Hidden Worlds Diving
KISS Rebreathers
Subgravity
Hollis
DiveSoft
XOC-HA
Cave Country Dive Shop
Dive by Design
Dive Gainesville
Dive Outpost
Fathom Dive Systems
Ginnie Springs Outdoors
Halpatter Brewing Company
Rum138
Scuba Force
Seide Realty
Shearwater
SF Tech Drysuits
Ursuit Drysuits
A Pristine Passage Dive for
Sheck Exley Award

By Phil Short
NSS-CDS Instructor #365

An early start found three of us crunching our way across the frosted grass of a farmer’s field to the River Cele’s banks in the Lot/Dordogne region of southwestern France. The air was a chilly 3°C/37°F. Approaching the river, we came to the spring and small head pool of the Source du Marchepied, our dive objective. We dropped off our sidemount cylinders and fins and walked back to the van to get dressed over mugs of coffee and to discuss the dive plan.

Arriving back at the head pool, we kitted up in the crystal clear spring water, considerably warmer at 14°C/57°F. We began our dive entering through the steep downward slope over boulders and passing a restricted low passage to enter the main cave.

The aim of the dive was a gentle swim as a team of three to take a good look at this incredible cave and to take photos. Diver #3 was taking photos, and divers #1 and #2 carried powerful film lights as well as their dive lights. The walls in the Marchepied are of clean white limestone, which reflects the light. The water is clear blue with zero suspended particulate on this dive, so it was a feast for the eyes.

On thirds we turned at approximately 400 meters/1312 ft from the entrance and made an enjoyable slow swim out savoring the site’s stunning geology. It had been a great dive and produced some really great images. What better way to spend my 1000th cave dive in a region I love with good friends?

©Richard Stevenson. Phil Short enjoys his thousandth cave dive in Marchepied, France.
“CDS Blue:” A Fresh Logo and Website for the Age

by the Training Committee

Improvements to the NSS-CDS website and logo have kicked into high gear. The Board of Directors and the Training Committee have harnessed their combined IT expertise and educational savvy to update CDS’ logo, website, and training standards. The upgrades sharpen our online image, make the website easier to navigate, and allow ready access to new educational material and courses.

**Bringing the logo into the modern age.** Our old logo dates from the pre-software era. Its cluttered design featured odd colors and was difficult to read. Cave divers recognized it, but it dated the CDS. The sleek remastered logo is digital friendly and instantly recognizable. Both a circle logo and logotype make up the design. (When using both, the circle goes to the left). Colors consist of solid white, solid black, and a special color to be known as “CDS Blue.” The circle logo’s design incorporates a blue gradient. These now are the approved colors for logo use. Red and other shades of blue are out.

Don’t despair if you just printed business cards using the old logo. Use them as quickly as you can. The Board will eventually set a cutoff date for using the old logo. Meanwhile, instructors can log into the new training website at www.cds-training.com/logo to download the new artwork for digital or print use. Do not reprint any cards or brochures using the old logo.

**Authorized use.** Only the Board or its designated representative can authorize the logo’s use. Active-status CDS instructors may use the logos to signify their CDS affiliation and their Section instructor status. They may not use the logos to suggest that they speak for the Section or represent it in any other official capacity. They may not put the logos on hats, T-shirts or other items to sell or give as freebies. The logo’s Design Policy and Style Guide will be available on the web site once approved.

**A more member-friendly website.** One of our first priorities was to launch a new subdomain devoted solely to training. It is up and running as www.training.nsscds.org. The new site separates education from the other activities, events, and resources listed at nsscds.org. Visitors can find what they want quickly (the two web sites are linked). Students will be able to select a course, find a US or an international instructor, replace lost c-cards, and contact the Training Department easily. The new website features a page for every course with a description, prerequisites, and an overview. Visitors can click to “find an instructor” from these pages and link to an instructor’s web site, Facebook page, and email. They can sign up and pay without having to chase down several different sites. The pages are sorted by course type.

Instructors will be happy to know that the registration page is fixed and running. You can log in with your user ID and password. Students can be registered and pay on the same page. We hope to make it possible to renew your instructor membership online by making a single payment that covers your renewal and both NSS and CDS memberships.

The new “Instructors Only” section contains links to a new generation of student and instructor forms, the latest Standards and Procedures and the new NSS-CDS logos. We hope that you’ll like it and welcome your comments.

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*CDS Training Committee members: Harry Averill, Chris Brock, Paul Heinerth, Lamar Hires, Max Kuznetsov, Ted McCoy, and Ken Sallot.*
Training Update:

By Reggie Ross, NSS-CDS Training Director

The NSS-CDS Training Committee has been working to bring about fundamental changes in how cave students learn. The goals are:

• to further improve the quality of certified cave divers.
• to better meet the needs of today's students.

The steps students follow to become NSS-CDS Cave Divers have not changed substantially since the 1980s. However, the number of students seeking training has skyrocketed. Today's students have very different needs and abilities than did their predecessors. Equipment, procedures, and the technology available to train cave divers have changed substantially. And we know more about how people learn than we did 40 years ago.

It's time our training program reflects these changes. So how are we doing this?

Cavern Diver course: Back to its roots

As originally envisioned, the Cavern Diver course was never intended to be one of the steps leading to cave diver certification. Instead, we envisioned it as a public safety and awareness course for open-water sport divers. There is still a demand for such a program.

Problems arise when students pair the old Cavern Diver course with the old Intro-to-Cave course. This creates a situation in which students can make it halfway through the 16 total dives required for cave diver certification without using sidemount or doubles. There is a broad consensus among instructors that before entering the training process, students should:

• have training and experience in sidemount, doubles, or CCR.
• be able to make the 16 required certification dives in complete cave diving equipment (no single tanks).
• demonstrate proficiency in cave-diver quality buoyancy, trim, and propulsion.

Many of today's students already meet these requirements. For those who don't, there must be a path that allows them to do so before cave training begins. The old Cavern Diver course doesn't provide this opportunity. This is why, from now on, the Cavern Diver course will neither be a prerequisite for nor will it count toward cave diver certification. It will also be a course that students may take only while wearing back-mounted single cylinders.

Getting ready for cave diver training

Many students who enter cave diver training today already possess technical diver certification from organizations such as IANTD or TDI. As such, they may be able to document prior training and experience in sidemount, doubles, or CCR. Many also demonstrate the buoyancy, trim and propulsion skills we expect of students.

For those lacking this training and experience, the CDS will offer a non-certification technical basics orientation. This will provide open-water sport divers with the same equipment and skills that trained technical divers
A new path to certification

should possess. It will help to put everyone who enters the cave diver training program on a level playing field.

The four-step process that used to lead to NSS-CDS cave diver certification has outlived its usefulness. Most trainees now complete their 16 certification dives either by:

- training in warm-water environments with little flow, such as Mexico. Students often complete their training in six to seven full days. The more benign conditions make this possible.

- training in harsher environments with colder water and high flow. Students typically break their training into two four-day segments.

Our training process should reflect this. From now on, it will. The new path will consist of two courses in place of the previous four.

The first step will combine the old Cavern and Basic Cave Diver courses into a single, eight-dive program. The difference is that students must be in full cave gear and meet the more stringent entry requirements just outlined.

The focus will be on:

- further perfecting buoyancy, trim, and propulsion skills.
- mastering basic guideline and reel use.
- practicing all emergency skills.

The limits of training for this level will be largely the same as before. The chief differences will be:

- penetration distance limited to 300 m/1,000 ft.
- usable penetration gas limited to 1,500 L/50 ft³ or one-third starting volume, whichever is less.

The second step will be the final eight dives leading to full cave diver certification. This will be largely the same as before and focus on more complex navigation and, if necessary, limited decompression at the end of dives.

Timetable for implementation

The Training Committee hopes to have revised standards ready for Board approval in early September. This means that by the time you read this, the new standards may be in place. The only things we have left to finalize as of this writing are names for the new courses.

If you have friends, family members, customers, or anyone else with whom you share information about learning to cave dive, make sure this information is up to date. You will find the new course descriptions on the NSS-CDS website.
In Memoriam: Steve Boyer

Longtime cave diver gave selflessly of his time, skill, and generosity

—by Brent Booth

In the winter of 2018, the cave community lost one of its longtime divers. Steve Boyer passed away after a battle with cancer. For those of you who never met Steve, I can tell you that he was a very unique individual. Not only was he a cave diver, but he was the “go to” guy when any construction needed to be done at our various dive sites and other locations. He worked closely with the North Florida Springs Alliance, repairing and replacing decks and steps, building changing rooms, and doing whatever was required to make things better for all of us who visit the dive sites. I don’t believe he ever accepted one penny for his work. If you ever helped out on one of the many projects he was involved in, then you know he was not above complaining and moaning and questioning who was running the show, but that was just Steve’s way of doing business. Truth be known, his antics were all in jest. He was always willing to do whatever was required to get the job done. Actually, Steve was in charge all along and everyone knew that!

Over the years, Steve was recognized many times by both the CDS and the NFSA for his volunteer work. For Steve, doing something for the cave community was just another day at “his office.” When he wasn’t doing volunteer work at our dive sites, you could find him building barns, sheds, decks and so on for those of us who live here in North Florida. You had to take a number if you wanted something done, and then you had to listen to him complain about all the work he had to do! Once again, a very unique individual.

Steve will be missed by those of us who knew him, and all of us should appreciate the work he did to improve our dive sites. The next time you’re going down the steps at Madison, Peacock, or Cow, or using the many facilities that he helped build, take a second and give Steve your thanks.
We’re fortunate to be having our 2019 NSS-CDS Winter Workshop at Hart Springs. Videographer Wes Skiles once described it as “one of the premier underwater caves on earth.” Admission is free to all CDS members but you must sign up. Admission does not include diving. Requirements below to dive in the cave at Hart are below.

Sign up for the workshop at https://events.nsscds.org/e/1/2019-nss-cds-winter-workshop.

Saturday, December 7:

• Cave Cartography - Adam Hughes
• IUCRR Rescue/Recovery - Lamar Hires
• CPR (adult, child, infant), First Aid, and Oxygen Provider - John Bentley, $10 fee

Sunday, December 8:

• Guided Diving (see requirements, guides, and fees at www.divehartsprings.com). You must be a full cave diver with at least 100 logged dives and have dive insurance.
• Free CDS Instructor Workshop (registration required).
2019 Cave Diving Awards

by Brett Floren, Vice Chairman,
NSS-CDS Awards Manager

Congratulations to our safe cave diving award recipients. The following divers have received awards since 2018:

**Abe Davis Award for 100 safe cave dives**
- Michael Barnette
- Scott Brinkley
- Derek Covington
- Robert Dankert
- John Dillaire
- Chelsea Dinon
- Andrew Donn
- Douglas Ebersole
- Christopher First
- Theodore Garlock
- John Dominick Gheesling
- Jennifer Gifford
- David R Green
- Matthew Griffith
- Gale Hall

- Matt Hensen
- Arthur William Johnson Jr
- Edward Lyden
- Tom Lenfestey
- Brice McMinn
- Dane Motty
- Johnny Nunley
- Chet Parzych
- Ben Paterson
- Brian Sheppard
- Steve Smith
- Jennifer Strange
- Tatiana Sevortyan
- Christopher Valero
- Connor Watterson
- Cameron Wheeler
- Rick Witter

**Henry Nicholson Award for 500 safe cave dives**
- James Baldwin
- Richard Blackburn
- William Gregory Brown
- Al Clements
- Derek Ferguson
- Gabrielle Proper
- Marvin Purdue
- Roger Williams
- Marvin Zaske

**Sheck Exley Award for 1000 safe cave dives**
- Joel Clark
- Martin Robson
- Phil Short
Current NSS-CDS Instructor Listing

Reggie Ross, Training Director, trainingdirector@nsscds.org

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<th>Instructor</th>
<th>Email</th>
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