Little River fatality, February 16, 2002. The following textual reports are considered to be factual. Final report is forthcoming.

## **Reported by Larry Green:**

"Accident occurred at approximately 12:22 P.M. 2/16/2002 Victim (experienced cave diver, CDS trained in '97, with 300+ dives) was diving with a buddy (Dive Team 1) and another buddy team (dive team 2). Both teams turned dive before Dome Room, Dive Team 2 did a quick jump up Harper Tunnel. Dive Team 1 kept exiting. Victim's buddy said that he was ahead of him and then realized that he wasn't behind him anymore, turned around, and by the time he got back, Victim looked like he was having a seizure. His regulator was out of his mouth. Victim's buddy gave Victim air on the way out (off Victims regulator). Dive Team 2 caught up to them between the Upstream and Downstream Mud Tunnel Jumps, on the main line. They all three proceeded from there to bring him out of the cave. One came up and yelled "call 911." Jill Heinerth was in the water with students, just prior to a dive. She descended down and brought the victim to the surface. The divers all had decompression, and were supplied extra oxygen in the water. There happened to be an ER doctor on site, along with a nurse. The ambulance got there in 6 minutes. Victim was air lifted to Shands Hospital in Gainesville, FL. The police officer in charge was very helpful through the recovery process. Wendy Shirah took all the notes during the recovery, she did a great job. I think all the divers did a good job in getting him out, and with everything happening the way it did, he couldn't have gotten a better chance."

## Following report provided by Joe McGrath

ACCIDENT REPORT -INCIDENT DATE 2-16-02 VICTIM - 57 yr old male LOCATION - Little River Spring, Suwannee County, Branford , FL

Victim Profile: Age: 57 Physically fit, non-smoker, very active 35 years diving experience 5 years caving diving Cold water wreck diver and researcher Known dive related issues: Difficulty equalizing ears during descents - chronic Interest areas: ship wreck research and still u/w photography

Dive Equipment:

Double LP AA95's w/isolated crossover manifold, primary regulators: Dacor & Sherwood. Single bladder wings BCD, backplate with integrated technical harness. Primary light 10W HID, with fixed 130 beam width, battery canister mounted right side waist. 3 backup lights. Safety reel, 1 gap reel, 7mm 2-piece wetsuit and hood. Computer: Single gas Nitrox, and an air computer back-up.

Victim diving with Nikonis V camera, with tray and two strobes attached.

Gas: Double LP 95 with EANx 32%, at 3600psi, labeled correctly, accurately and verified post incident. Isolated crossover manifold, no travel stage bottle gas, O2 decompression planned with LP45cf. steel tank stowed at 20' for planned decompression.

Known medications in personal affects: CVS-brand sinus decongestant/antihistamine tablets - (active ingredient - psuedoephedrine-hydrochloride, 60mg.) Walgrens-brand 'Waltussin' CF nasal decongestant spray: -(active ingredient - Guaifensin, USP 100mg, Phenylpropanolamine Hydrochloride, Dextrometrophan.) Aspirin 325 mg. AuroDri-brand alcohol-based Swimmer's Ear.

Victim was using nasal decongestant and antihistamine at times during the week prior to incident. Dosage unknown.

Findings of post-incident equipment inspection:

EANx breathing gas concentration 32%, correctly annotated on cylinders. All regulators performing within specifications, all valves turned on fully, tank pressure 1600 psi., BCD wings - good integrity - partially inflated, all lights functional. Time in water 73 minutes. Typical mid-dive PO2 1.2, maximum 1.4. Maximum depth 104'FFW. Previous elevated oxygen exposure within 24 hours prior to accident: one non-decompression dive using EANx 26% at Peacock Spring on the previous day.

## Dive profile/plan:

Mission: Still-photography dive planned. Swimming dive to Double Domes via main line, return on gold line, decompression on main line in cavern. In on Merry-Go-Round tunnel, gold to upslope of Double Domes, return on Serpentine tunnel, exit on gold line. 32% EANx back-gas in manifolded twin LP 95 steel tanks. 45 ft3 of 100 percent O2 placed at 20 feet prior to dive. Total bottom time anticipated at 60-65 minutes.

## Incident Time Line:

Dive started at 1115 EST. Swimming dive to Double Domes via main line: Turned dive at 1149 EST, returning on gold line via Serpentine tunnel. At approximately 500 ft. penetration, exiting system with the flow, and approximately 52 minutes bottom time, victim's partner (leading out) lost contact with victim's light in upstream end of Terminal Room, 70 ft down stream from large Dorff marker. Total diver separation time estimated to be 1 to 1.5 minutes. At 53 to 54 minutes into dive, partner returned upsteam to find victim in state of violent full body convulsions, thrashing near floor, head on gold line, regulator out, teeth clenched, lips closed tightly, slight thread of blood from nostril into mask, eyes wide open, no eye activity. Partner attempted to quell tremors and offer assistance, then immediately forced his long hose regulator into mouth of victim. The victim was not breathing. Partner began forced ventilation with purge valve. Victim began to breath on his own. During 500' evacuation swim, victim breathing was erratic, weak, but present through to hand-off to surface support crew at top of Chimney. Partner observed that forced ventilation using purge valve during non-breathing periods restored a weak and intermittent pattern of breathing in the victim for short periods of time. At 68 minutes, surface support divers converged at top of chimney to continue evacuation. Surface crew returned to spring basin at 73 minutes. Victim pulled onto beach and CPR initiated immediately by qualified bystanders. Exit time - 1228 EST.

Above timeline data substantiated by dive computer profiles of victim and partner. Dive profile of victim attached as Adobe .pdf file.

Observations of partner and another diver assisting with in-water evacuation:

1. Forced ventilation of victim using purge valve during non-breathing periods restored weak but voluntary breathing pattern in the victim.

2. Convulsions were clearly involuntary. A state of panic in the victim was not present.

3. An MR-11 primary dive light with 13 degree beam dispersion angle is inadequate to alert or signal a diver more than 6 feet ahead.