

Accident Analysis – 1987

DIVING INCIDENTS 1987

B Orange Grove Sink, Florida January 7, 1987

A large group of newly-certified divers went to Orange Grove Sink on January 7, 1987 to take part in an “apology” dive of the University of Florida Underwater Education Program due to poor visibility conditions on several open-water qualification dives they had been on.

They buddied up and entered the water at 10 a.m. An instructor, MM, paired with a student, RK. MM was testing a Poseidon 300 regulator which had been rebuilt two weeks before. He did not bother to add an octopus for this single dive, but he checked to see that RK had one.

The water was extremely clear as they descended and at 67 feet, MM signaled that he would like to look just inside the entrance to the cavern zone. RK was already using his small handheld light. They continued down to about 90 feet.

“At this point, RK was about three meters below me and four meters behind me, when upon Inhaling, I was unpleasantly surprised by a 100% water intake through my mouthpiece.”

Not believing he was out of air. He attempted a shallow breath and again got water. He was now on the verge of a choking cough, nearly gagging with water in his esophagus.

He decided that a free ascent with no ability to exhale would be hazardous, so he headed for RK, making the out-of-air signal. When he reached RK, he was on the verge of uncontrollable cough and beginning to “grey-out.”

RK saw the signal as MM arrived and removed his primary second stage and placed it in MM’s mouth. As MM coughed out the water, RK picked up his octopus and began breathing it. When MM got control, he signaled “OK” and “UP” and they surfaced without further incident.

Reference: Milledge Murphey “The ‘Apology’ Dive: A Near Miss” Underwater Speleology 14(4) August 1987, p 7.

Analysis: Apparently, after the regulator rebuild, the repair people had “failed to put a new plastic tie around the mouthpiece/second-stage orifice junction and, more importantly, (MM) hadn’t checked the tie placement when (he) had surface checked the regulator following the service.”

MM decided, on the basis of this critical experience, that in situations like this, one should give away the five foot hose to one in trouble, retaining the short hose. The best configuration would be a “5-foot hose with first and second stage mounted on the outside manifold post with the hose routed under the diver’s right arm, around the diver’s neck and into the diver’s mouth as the primary.”

“The second stage should then be mounted on the inner or center post, routed over the right shoulder. And held at the base of the wearer’s throat with a rubber neck band. Mounted on the safe second regulator’s first stage should be inflator hose(s) and pressure gauge, plus the safe second stage regulator.”

This minimizes entanglements when sharing, eliminates excess bungee cords, and puts the safe second at the throat where it can be accessed easily.

Lastly, MM obtained a “renewed belief in absolute rigid adherence to all safety considerations” taught in diving... “Why would anyone ever dive without an octopus-even in open-water...?”

AA Unspecified Cave, Mexico Spring 1987

Three divers reportedly entered a cave somewhere in Mexico using two scooters. The first scooter towed a 13 year old boy who had only five minutes of SCUBA instruction. Their only lights were the scooter headlights. The first scooter apparently got too close to a sand bank and stirred up silt. The second scooter, with the single diver, saw this and retreated. The first continued and the divers drowned when their air was exhausted.

Reference: Ed. “Scooter Fatality in Mexico” Underwater Speleology May 1987.

D Castleguard Cave, Alberta, Canada April 7, 1987

During the week of April 4-11, a group of cavers was attempting a dive in Castleguard Cave in Alberta, Canada. Most of the group acted as Sherpas, ferrying diving and caving gear in to the sump. 1.1 km into the cave.

The sump is a rift two by six meters with the water level about 2 meters below the lip. The near end was a rubble slope leading down to the water. The visibility in the water looked good as they prepared to dive, but a large rock was perched precariously over the pool: when it was purposely dislodged, silt was stirred up and visibility went to nothing.

One diver swam over to a fixed shot-line and followed it down. Visibility was indeed zero so he came back up, having descended 12 meters.

They waited for an hour for the silt to settle and KS went in. He descended to 14 meters. Where a passage seemed to go off. Visibility was still almost zero, and he turned back. When he did so, the line-reel jammed and he lost contact with the wall. When he increased his buoyancy and ascended, he could only hope that he would come up in the same rift he had descended-he did.

Reference: (Keith Sawatsky “Diving in Gastleguard · · The canadian Caver Fall. 1987

AA Bonnet Spring, Florida June 13, 1987

On June 13, two divers, a husband and wife, entered Bonnet Spring near Peacock Spring in Florida. In fact, the divers thought they were in Peacock Spring. Both were open-water certified with no cave diving training. Almost immediately they stirred up “serious” silt. The wife was frightened by this and turned back not far in from the entrance, exiting successfully. The husband continued on, lost his way and died when his air ran out.

Reference: Ed. “Open-Water Diver Dies in Bonnet Springs” Underwater Speleology 14(4) August 1987. P 4.

Analysis: The body recovery team was Mark Leonard and Ron Menke. Ron reports that it was “a completely typical, textbook-type open-water diver cave-diving accident, with all cave diving rules except the depth rule having been broken.”

AA The Elevator Shaft, Oahu, Hawaii July 3, 1987

On the third of July a group of four Marines geared up for a dive at the Elevator Shaft at Sharks Cove on the north Coast of Oahu Island. Hawaii. Lance Corporal RR wanted to cash a check and waited at a store until it opened at 9 a.m. The others, WS, Corporal JH, and Lance Corporal RW, proceeded to the cove at 8 a.m. WS had been certified “open-water” for two years, the others for two months. Their training came at a dive shop that stressed the dangers of cave or wreck diving.

The Elevator Shaft is an opening to the sea that has at least three lava tubes leading from it. One leads to a small cove and across this is the entrance to a longer lava cave complex with a number of side passages.

The three apparently had one tank and regulator each. They swam into the longer lava tube and proceeded for about 150 to 200 yards, where they got into difficulty, perhaps from low visibility, or lack of light.

At 11 a.m, RR arrived at Shark’s Cove. He put on his gear and entered the water. The seas were rough and there was no sign of the others. He searched the cave entrances until 12:30 p.m. when he exited the water and returned to the cars. There was no sign that his friends had been to their vehicles while he had been in the water, so he proceeded to Aaron’s Dive Shop.

RR returned to the cove with an instructor and searched for another hour. They found nothing and at 2:30 p.m. they called the Fire Department Rescue Squad. Divers located the bodies, together, at about 5:30p.m.

References:

- 1) AP ·'Three Marines die while scuba diving through lava tubes'· The Tribune (San Diego) July 4. 1987.
- 2) N. P. DeCarlo Personal Communication to Mike Dyas. January 19. 1988 (Sketch map of cave).
- 3) G. L. Cates Investigative Report U. S. Marine Corps. September 18. 1987. 4 pages.
- 4) C. H. Ellis Investigative Report U. S. Marine Corps. July 23. 1987, 6 pages.

Analysis:

Apparently the four were unaware of the complexity of the caves. In any case they were quite unprepared for a cave dive and broke all the rules.

A Marine recreational diver and Corporal RR were the ones to find the bodies and had to retreat because of low visibility. They followed an old rope out of the cave.

The group had made a “rudimentary dive plan” at the barracks the night before, but did not follow it. The Marine Corps investigation also cited the strong wave surge from the rough seas as contributory. Only one flashlight was recovered with their equipment. An autopsy showed death due to drowning.

AA Jenkins Creek Cave, Florida July 21, 1987

On Tuesday morning, July 21, a group of three teenagers arrived at a spring in Jenkins Creek, near Weeki Wachee, Florida. BC and JT proceeded to dive the spring, despite a sign saying “No Diving.”

BC led, carrying the reel laying the guide line. They got about 50 to 60 feet down and 170 feet along the narrow passage when BC finally became deterred by the silt they were kicking up. Thinking JT had already turned back. BC retreated, taking in the line. When he got to the surface, JT was not there.

Apparently JT had lost track of the guide line and became disoriented in the silt. When his air got down to just a few minutes, he took off his tank and scratched “I love you Mom, Dad and Christian” on it with his dive knife. It was his mother’s birthday. His body was recovered by rescue divers later that afternoon 57 feet down.

References:

- 1) Ed. "Drowning boy leaves message" Tallahassee Democrat July 24. 1987.
- 2) Ed. "Doomed teen scrawls note" San Angelo Standard Times July 24. 1987. 3) Dick Donovan "Trapped Diver Scratches Out Farewell Note to Parents" Weekly World News August 25. 1987.

Analysis:

JT had been open water certified since February and done 100 dives. He was signed up for a cave diving course but apparently thought to get a head start on it. He was described as "fearless" by his father. Perhaps "fearless" is not a very good attitude, especially for a cave diver.

To scratch a farewell note in an asphyxiating situation, a very unpleasant way to die, must take tremendous presence of mind.

AA Blue Springs, Florida September 28, 1987

On Tuesday, September 28, two divers, JT and JC went diving in Blue Springs, at Blue Springs State Park, Volusia County, Florida. JC had reportedly been certified as a cave diver a week earlier at Ginnie Springs. He had been diving for a year.

The pair had dropped off three extra tanks at points along the course of the dive, and JC hoped to penetrate deeper and farther than anyone had done previously. When they began their dive he had 30 minutes of air in his tank.

When they got 120 feet down, they encountered a powerful current that pinned Cowart against a rock. His regulator became tangled and he drowned. JT apparently surfaced too fast and was airlifted to Shands Hospital in Gainesville, where he received decompression treatment. Cowart's body was recovered the following day by a team from the Volusia County Sheriff's Office.

Reference: AP "Diver drowns in current at spring mouth" Tallahassee Democrat Friday, October 2, 1987.

Analysis: The lead body recovery diver, Carl Clifford, noted that the stashed extra tanks did JC no good when he became trapped. He should have had a spare regulator and tank with him. According to Clifford. "No one, not even experienced cave divers, should attempt to dive through the powerful currents of the spring like JC did."

D Wild Well, Iowa November 15, 1987

On Sunday, November 15, a group of cavers did preliminary dives in Wild Well in Iowa. They intended to do short, one-reel (300 foot), solo dives to look for old lines and other hazards. They each had Y-valve tanks with an extra tank and regulator, three lights and an extra mask and reel.

DS proceeded. The water was very clear and he passed two air filled rifts and passed what he thought was the end of the old line. Five minutes had passed when his back tank worked loose and fell. DS changed to his long hose and dropped to the bottom. .

The water now became silted and the safety line was wrapped around his regulator. After a few minutes DS tied off the reel and left it following his line out, carrying the loose tank. ‘

Reference: Mike Nelson and Doug Schmuecker “Wild Well Project, Iowa” Underwater Speleology, 15(3) May/June 1988. p 13.

Analysis: Schmuecker says “if you follow all safety rules, you can take care of a major problem- and end up with only your feelings hurt.”