Law Enforcement Session

Aquatic Investigations and Recovery

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Abstract: The Aquatic Investigation and Recovery team of the South Carolina Department of Natural Resources is a 12-member team that is responsible for the recoveries of as well as provides investigative assistance for many water related fatalities in the state of South Carolina. Three specific incidents are discussed here. The first being the 1994 Susan Smith case, when a mother murdered her two children by allowing her vehicle to roll into Lake John D. Long in Union County, S.C. The second occurred in 1996, also in Lake John D. Long, when seven people—four of which were children under the age of 7—drowned when their vehicle rolled into the lake. The third incident occurred in 1999 and involved a 16-year-old female from Pennsylvania who slipped into a class IV rapid on the Chatooga river in Oconee County, S.C. Due to adverse water conditions, her body was not recovered for almost two months. Recovering bodies can take a toll on those who provide this service. Professional support as well as self de-briefing can be a valuable asset.

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The Aquatic Investigation and Recovery team of the S.C. Department of Natural Resources was formed in the mid 1970s to provide a service to the department that would assist in the recovery of drowning victims. The old method of recovery of such victims was dragging, which involved many man-hours and, often, days of waiting for the families of the victims. Boating accidents in which sunken vessels were involved could not have complete investigations. Since that time to present, investigations are more complete and recovery times are much shorter. Closure of such tragedies is much faster for family members. As of this day, the team is composed of 12 members. Each member is Padi certified in scuba, and each member has received training in investigations and recovery techniques. This team plays an important role in the re-construction of accidents and incidents.

Susan Smith Incident

Michael and Alex Smith were reported abducted on 25 October 1994, which was a Sunday. State and local authorities started an investigation. On 31 October 1994 the Aquatic Investigation and Recovery team of the S.C. Department of Natural

Resources was called to assist in the investigation. Upon arriving in Union, S.C., we were met by investigators from the Union County Sheriff's Department. The team was led to different locations around the county to search bodies of water for either the car or the bodies of the two Smith children. The team searched different areas until late in the night with no results. The next morning the team searched farm ponds, rivers, and any other areas where the water would be deep enough to hide a car. Around noon, we ended up at Lake John D. Long. This lake only had two access points. We searched the back one first. The water at the deepest point here was probably no more than six or seven feet deep. We searched the entire area and came up with nothing. We then proceeded to the front access point of the lake. This was the one that was used by the public most often. Up to this time, we had not seen any press members around and we were trying to keep our location quiet. The reason for this was that the sheriff, the chief of the S.C. Law Enforcement Division (SLED), and the Federal Bureau of Investigation were running a parallel investigation on Susan Smith at the time. After about 10 minutes at the front access to Lake Long, we were overcome with a parking lot full of press and cameras, but their presence did not interfere with our search. We began at the edge of the boat ramp and used a 100-foot search line stretched from the shore out into the lake. The area was searched; the water depth ranged from 18 to 20 feet. Both sides of the boat ramp were searched with no results. The sheriff, the chief of SLED, myself, and the other divers concluded that we had searched far enough out into the lake. We had recovered many vehicles before, and we believed that no vehicle could have gone any further than we had looked. At that time, Sheriff Wells asked if we would search one more area, the landing at Broad River, also in Union County.

Another diver and I proceeded to Broad River to search the area. Upon arriving I decided to conduct a pendulum search due to the current. This type of search is all right if you are looking for big objects, but not always a good choice for many searches because it leaves spaces that are questionable. I made the search reaching a depth of around 12 feet. Visibility was pretty clear, but the current made it hard to stay on the bottom. After the search, I did not feel secure that the area had been searched well and was concerned something could have been missed. I told one of the department helicopter pilots about the search and asked him to fly the river and look for any large shadowed places in the water. He assured me that he already had and in many places he could see the bottom on the river because of the clear water.

The purpose of diving all the water around Union County was that because of all of the media attention that was placed on this incident, immediately and nation-wide, the car had just disappeared. The only practical place it could be was under the water somewhere.

On 3 November 1994 the Aquatic Investigation and Recovery Team was summoned to respond back to Lake John D, Long in Union County, S.C., to the front access ramp. Radio silence was to be maintained. Sheriff Wells of Union County wanted no one there but law enforcement personnel. Susan Smith had confessed to letting her car roll into Lake Long with her two children, Michael and Alex, still inside.

The final search for the car was started. A search line was set up and a diver entered the water. This lake has no current, so estimating where the car might be was not possible. We knew it had rolled in at the boat ramp. After searching where we had searched just two days prior and several feet further into the lake, the car was located. It was upside down on the bottom in eighteen feet of water. We tied line to the car, and the diver returned to the surface. Two other divers then entered the water and proceeded to the vehicle. They returned to the surface and verified to investigators that the two children were in the back seat of the car still strapped into their child restraint seats.

The State Law Enforcement forensics team then began measurements and documentation of the crime scene through the assistance of our team of divers. After this was done and some time had passed, the car was removed from the bottom of the lake. The bodies of the children were not removed until the car was on dry ground. At that time they were removed from the vehicle still strapped in their child restraint seats and sent to the Medical University of South Carolina for autopsies and positive identifications.

In February 1995, Solicitor Tommy Pope requested that the crime scene be reenacted and that the float characteristics of Smith's car be studied. SLED Special Agent Steve Derrick reported on the reenactment which took place on 25 May 1995. According to Derrick, Smith's car was restored to what was believed to have been its original condition, filled with the same amount of gas and other fluids as that which was originally discovered in the car, and weights placed in the car to simulate body weights and other items which were in the car. Another, virtually identical car, was treated in the same manner. Both cars were taken to Lake John D. Long and released down the ramp in a way similar to the description provided by Smith. Smith's car rolled into the lake, floated approximately 88 feet from shore and sank, front first, in 18 feet of water, five minutes and 48 seconds from the time it first entered the water. It settled upside down on the bottom of the lake within eight feet of where the Smith car was discovered on 3 November 1994. The test vehicle floated approximately 85 feet from shore and sank, front first, in 18 feet of water, five minutes and 53 seconds from the time it first entered the water, It also settled upside down and within five feet of where the Smith car had been originally discovered.

Another Tragedy at Lake Long

In September 1996, members of the Aquatic Investigation and Recovery team returned once more to Lake John D. Long. Seven people had drowned when the Chevrolet Suburban they had driven to the lake suddenly rolled down the hill and into Lake Long. The dead were three adults and four children. They had been looking at the monument that was placed at Lake Long in memory of the Smith children. Two of the adults were out of the vehicle reading the monument while one adult and four children waited in the vehicle. For some reason, the transmission in the vehicle broke, causing it to come out of park and roll into the lake. In a matter of a minute, the vehicle began to sink. The two adults that were outside of the vehicle ran into the

water to get the children out. Three small children ages 4 years to 7 years old and one 3-month-old baby were still in the vehicle while it was sinking. The one adult male who was still in the vehicle while it rolled down the hill tried to pass the children out of the sinking vehicle. Two of the children were passed out into the lake. They drowned away from the vehicle. The adult female who was reading the monument was able to get inside the vehicle as it was sinking to try to get the 3-month-old baby unstrapped from the car seat. She could not do it, and they also drowned.

When our team found the vehicle, it was in 20 feet of water, upside down facing the shore. Visibility was zero even with a light. One body, an adult male, was found on the bottom of the lake by the driver's door. He was believed to be the driver. Another male was found on the bottom of the lake about 150 feet away from the vehicle. Inside the vehicle, was one adult female, one 3-month-old female still strapped in her child seat and one 4-year-old male. He was in the very back of the vehicle. We could not reach him from the back seat, so we had to bust out the back window of the vehicle. We still had one child missing that we could not find in the vehicle or around it. We decided to go ahead and pull the vehicle from the bottom of the lake. We swam along with it until it reached the shore. After inspecting the vehicle we found that the gearshift was still in the park position.

We were completely exhausted, we had been in the water since 2340 hours, and it was now around 0430 hours. We decided to take a break until after daylight. We would resume the search for the other child then. When daylight broke, the other child, a 6-year-old female, was floating against the edge of the lake. A total of seven bodies were recovered from this accident that morning. Through the investigation of another agency, it was found that something in the transmission of the Chevrolet Suburban had broken, causing the vehicle to roll into the water.

Chatooga River

On 29 May 1999 Rachel Trois, a 16-year-old female from Pennsylvania, and her boyfriend were attempting to cross atop of a class IV rapid on the Chatooga River, a river protected by the National Wild and Scenic Rivers Act. While crossing on the slippery rocks, both subjects fell into the rapids. Trois' boyfriend surfaced, but Trois never came up.

Many days went by as local authorities and rescue personnel attempted to recover Trois' body. All attempts were unsuccessful. The current was too strong in the rapid and her body was somehow trapped in the rocky environment of the rapid itself.

On 24 June 1999 the Aquatic Investigation and Recovery Team of the S.C. Department of Natural Resources was called in by local officers to assist in recovering the body of Trois. Local officials believed that her body was in a hole at the foot of the rapid and that sand was packed all around it not letting it break free and surface. Through our experiences, we knew that this was not likely. Her body had to have washed under some of the rocks in the rapids and the hydraulics of the water must have been keeping her down.

Much discussion was undertaken about a portable dam that was offered that

would temporarily divert the flow of water into the rapids and allow a dive operation. The construction of this dam received much opposition from local rafting companies, local residents, and the U.S. Forest Service. They all feared that the construction of the dam was an alteration to the river. After a much-fought battle, the dam was installed.

A company named PortaDam, Inc. provided and supervised the installation of the dam at no cost to anyone. The day the dam was installed, rain fell heavily down the mountains into the river causing the river to rise rapidly. The dam was not able to hold back and divert the water. In less than a minute, the river flowed over the top of the dam. The dive operation had to be aborted at that time.

On 20 July 1999 the team returned back to the drowning site to attempt to dive downstream from the rapids, searching for any sign of her remains in case the changing water levels had washed any downstream. Nothing was found. Her body was believed to be still under rocks in the rapids.

On 28 July 1999 another attempt to divert the water with the portadam was done. This time it was successful in holding and diverting the flow of the water into the rapids.

Trois remains were recovered that day. The body had been bent across a log in the chute of the rapid from the time it first entered the water. After months of high volumes of water, her body finally broke up and washed under large rocks within the rapids. The remains recovered totaled about 15 pounds. That was 105 pounds less than she weighed the day she slipped into the rapids of the Chatooga River.

If better cooperation between state, local, and U.S. Forest Service agencies had existed on this incident, her body might have been recovered a lot sooner than it was. This was a long, dragged-out operation for the family of this 16-year-old girl. To date, all agencies involved have pledged to do better on such incidents.

Methods of Searching

The Aquatic Investigation and Recovery Team of the S.C. Department of Natural Resources utilizes a line and anchor search method; this being usually a 100-foot poly rope with an anchor attached to both ends. Attached to each anchor is another poly rope that runs from the anchor to the surface and attaches to a float. The 100-foot line is called the bottom line and the other two lines are called the up lines. The bottom line is held tightly to the bottom of the aquatic environment with the anchors. The up lines give the diver a line to the surface. These lines also allow topside supervision of the divers movement and direction. One diver works this search line in a pre-determined direction. When the diver's air supply or the diver himself is exhausted, then he is changed out with another diver. This type of search is used most often. It allows the area to be searched for any size object. The diver swims the bottom line back and forth moving each anchor as he reaches it in a pre-determined direction. With this search, the diver is always over-lapping and checking each half of the line twice. Objects or bodies are very unlikely to be missed with this type of search.

Another type of search is the pendulum search. This search is used only in environments when one is searching for a large object or currents are too strong to run a bottom line described above. In this type search, the line is anchored to the bottom with one anchor. The diver swims back and forth in a pendulum motion until he reaches the end of the line. With this type search it is very easy to miss an object or body. The diver has no reference point nor has no judgment of distance that the line has been moved.

Free diving with no lines is another method of searching. Our team does not utilize this type of search often. It is more dangerous than all the others due to the fact that the diver has no reference points or lines to return to for safety. This search is only utilized on certain occasions and in diver-friendly environments.

Post Traumatic Stress

After all incidents where recoveries are involved there is always stress. Whether emotional or mental, it's there. There are ways to deal with this type of stress and there is training in the field for this. Our greatest tool as a team is self de-briefing. We are very close and we talk about our incidents on the scene after the recoveries. We do not take these incidents home with us. One who does the task of recoveries needs to talk to others about it. Whether it is professional help or co-workers in the same line of work. If one who does this type of work cannot talk to someone about it or is bothered about it, then it is time for him or her to get out of the recovery field.