

09-06-2013 Lake Shasta – Ken Smith – Salvage ROV Recovery Deep**UPDATE: Volunteer killed, deputy in fair condition after dive incident on Shasta Lake**

<https://krcrtv.com/news/shasta-county/update-volunteer-killed-deputy-in-fair-condition-after-dive-incident-on-shasta-lake>

September 8th 2013 by Evan Schreiber

SHASTA LAKE, Calif. - A volunteer diver, assisting the Shasta County Sheriff's Office in the effort to recover a drowning victim, died during a dive Sunday, according to officials.

He has been identified as Ken Smith of Redding.

A deputy who tried to rescue the volunteer and ascended too quickly is in fair condition and has spent five hours in a decompressio



diveaxphoto-1336468-ver1-0.jpg

n chamber at Travis Air Force Base, according to investigators.

Authorities said he is responding well to treatment and doctors believe he will recover.

He has been identified as John Zufall, a 12-year veteran of the department, and a 10-year veteran of the dive team. Divers were trying to recover a remote-operated vehicle belonging to the San Francisco Police Department. It became entangled Saturday during the search for the body of 18 year-old Robinson Sok, of Oakland, who drowned Friday morning in the McCloud Arm of Shasta Lake. Officials said Smith did not come up after a significant amount of time during his dive, so Zufall went down and found the volunteer disabled at 170 feet. According to investigators, Smith was highly qualified with many years of experience.

The Shasta County Sheriff's Office is now waiting for an outlet agency to come in and do an investigation.

A houseboat is still serving as a floating incident command center for the original recovery operation.

Lake Shasta diver dies during search for missing Oakland teen

<https://www.mercurynews.com/2013/09/09/lake-shasta-diver-dies-during-search-for-missing-oakland-teen/>

September 9, 2013 By BAY CITY NEWS SERVICE | Mercury News

A volunteer diver died during a search for an Oakland teenager who was last seen in the water at Lake Shasta.

The search for Robinson Sok, 18, started on Friday around 10:30 a.m. The teen, who had been on a houseboat with friends on the middle part of the McCloud Arm of the lake, had attempted to help a friend who had been swimming.

While going after the friend in distress, Sok apparently began to struggle as well. He went under water and did not resurface, according to Shasta County sheriff's officials.

Because this part of the lake is deep, divers were not initially used. Instead, a San Francisco Police Department dive team employed a remotely operated vehicle and a sonar system on Friday and Saturday.

As the search continued Saturday night, the vehicle became entangled, and a salvage diver attempted to retrieve it, according to the sheriff's office. That diver, Ken Smith, had to be pulled from the water by a sheriff's office dive team member. He was declared dead at a hospital.

The sheriff's team diver, John Zufall, was later flown to Travis Air Force Base near Fairfield where he was placed in a decompression chamber.

Zufall has worked for the sheriff's office for 12 years and been on the dive team for about 10 years. According to the sheriff's office, he is a certified advanced diver and was a diver in the U.S. Navy.

He is expected to survive.

Salvage diver dies in Lake Shasta

<https://www.chicoer.com/2013/09/09/salvage-diver-dies-in-lake-shasta/>

September 9, 2013 By **RECORD SEARCHLIGHT**

LAKE SHASTA — One of two divers participating in the recovery of an 18-year-old man who drowned Friday also drowned Sunday during the search effort.

Shasta County sheriff's deputies said the man, who was identified as Ken Smith, was a salvage diver.

He died after attempting to free an underwater remote operated vehicle that was brought in Saturday for the search, deputies said.

Deputies have said the underwater vehicle arrived Saturday from the San Francisco Police Department to help in the search for the body of Robinson Sok, 18.

But, sheriff's deputies said the remote-operated vehicle became entangled Saturday, and Smith attempted Sunday to retrieve it.

A sheriff's office dive team member, John Zufall, was stationed in the water as a safety diver during the dive with Smith, deputies said.

Zufall surfaced with the salvage diver, but deputies said, Smith could not be revived and he was later pronounced dead at a Redding area hospital.

Zufall was later flown to Travis Air Force Base and placed in a decompression chamber. His injuries are not considered life threatening.

Emergency dispatchers reported around 10:30 a.m. Friday a possible drowning in the Holiday Harbor area of Lake Shasta.

Lt. Mark Lillibridge said the recovery effort for the 18-year-old Sok was temporarily halted.

Sok drowned after jumping in the lake to help a friend who was struggling in the water.

That friend was saved, but Sok didn't resurface, sheriff's deputies have said. The lake's depths range from 190 feet to 250 feet in the search area.

Diver helping with search for Oakland man drowns

<https://abc7news.com/archive/9241630/>

September 10, 2013

REDDING, Calif. A veteran diver lost his life while searching for an Oakland man believed to have drowned while swimming in Lake Shasta.

The salvage diver is identified as Ken Smith. He died Sunday while trying to free an underwater remote-operated vehicle that was being used in the search.

The San Francisco Police Department had sent that vehicle to help in the search for 18-year-old Robinson Sok of Oakland.

Sok was last seen Friday morning when he jumped in the lake to help a friend who was struggling in the water.

Details emerge in Sunday death of volunteer diver on Lake Shasta

<http://archive.redding.com/news/details-emerge-in-sunday-death-of-volunteer-diver-on-lake-shasta-ep-299395517-353734451.html/>

Sept. 12, 2013 By [Sean Longoria](#) of the Redding Record Searchlight

More details emerged this week in the death of a volunteer diver who was helping the Shasta County Sheriff's Office search for a man who drowned last week in Lake Shasta.

Sgt. Eric Magrini said Ken Smith, 63, of Shasta was found at a depth of 173 feet during an attempt to salvage a borrowed underwater remotely operated vehicle brought in Saturday for the search.

Deputies have said the underwater vehicle arrived from the San Francisco Police Department to help in the search for the body of Robinson Sok, 18, who drowned after jumping in the lake to help a friend who was struggling in the water.

Sheriff's dive team members dive only to depths of 100 feet and the vehicle is capable of greater depths. It became snagged underwater at about 143 to 147 feet, Magrini said.

Because their diving depths are limited, the Sheriff's Office reached out to local salvage divers, including Smith, who on Sunday met with members of the sheriff's dive team and members of the San Francisco dive team, Magrini said.

The group discussed safety measures, risks and contingency plans for the dive to retrieve the vehicle, worth about \$80,000 to \$100,000, Magrini said.

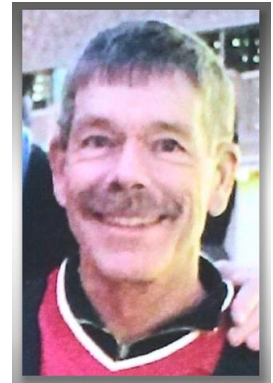
"Everything that could be thought of or thought through, was," he said. "After everything was laid out, everyone gave the thumbs up, everything was good, and we went forward."

Dive team member John Zufall and Smith went into the water together and down to 100 feet, the limit for the Sheriff's Office, Magrini said. Smith dove further while Zufall waited at 100 feet with a spare air tank.

The dive time for Smith to reach the vehicle, free it and return to Zufall was estimated at 11 minutes. That came and went and Zufall pulled a safety line attached to Smith but received no response, deputies said. So he dove further.

"He (Smith) was found at 173 feet. John didn't even realize the depth he was at," Magrini said.

Zufall attempted to get Smith's attention but was unable to do. He then grabbed Smith and immediately ascended to the water's surface, Magrini said.



Volunteer diver Ken Smith, 63, of Shasta died Sunday while helping the Shasta County Sheriff's Office at Lake Shasta. Smith was found at a depth of 173 feet during an attempt to salvage a borrowed underwater remotely-operated vehicle that was brought in to find a drowning victim.

"Anything over 100 (feet), you've got to decompress at certain levels for up to 10 minutes," Magrini said.

While medics attended to Smith, who was taken to Shasta Regional Medical Center and later pronounced dead, Zufall was quickly struck with decompression sickness, Magrini said.

Zufall was taken to Travis Air Force Base, where he underwent two 5-hour stints in a decompression chamber.

"After that second round, they did a scan and gave him a clean bill of health and sent him home," Magrini said. "He (Zufall) is at home resting, spirits are good other than dealing with the tragedy of the diver."

Smith's autopsy was completed Wednesday but a cause of death has yet to be determined, pending the results of a toxicology test that could take 6 to 8 weeks to return results, said coroner's spokeswoman Maureen Hern.

The search for Sok's body has been suspended since Smith's dive, though Magrini said teams had searched a great deal of the part of the lake where his body could have been based on witness reports.

An independent investigator, possibly a master diver from the Los Angeles County Sheriff's Office dive team, will be handling an investigation into Smith's death, he said.

"Our thoughts and prayers go out to the family," Magrini said.

Smith's family has asked for donations to Shasta County Search and Rescue or the Mt. Shasta Ski Patrol in lieu of flowers.

A Humboldt County native, Smith was a member of the ski patrol and frequently used his salvage-diving skills to help the community, according to his obituary.

"He would jump at the hat to help anybody," his wife of 39 years, Cheryl Smith said today. "When he got that call to go do that job, he didn't hesitate. That's just the kind of person he is, he's spent hours and hours on Mt. Shasta looking for people who've been lost, that's just him."

His passion for diving, search and rescue and water skiing began with his two-year Army stint as a watercraft operator along the Mekong Delta.

He met Cheryl Smith while water skiing on Whiskeytown Lake. The two celebrated their wedding anniversary Saturday with a "wonderful day" at their houseboat on the lake, she said.

"It was nice, very nice," she said.

Cheryl and Ken Smith moved to Shasta in 1982 and few years later purchased the Oak Bottom Marina on Whiskeytown Lake and later Ruth Lake Marina in Trinity County, according to the obituary.

The couple has a son, Hunter, and Ken Smith has a brother and two sisters. The entire family is having a hard time, but both sides are in Shasta County for his memorial, Cheryl Smith said.

"He has wonderful brothers and sisters," she said. "His brother Don will be officiating his brother's memorial (he's a pastor) so that will be very hard for him. They were a close family."

A memorial service for Ken Smith is set for 2 p.m. Saturday at Redding Christian Fellowship, 2157 Victor Ave. in Redding. The Clover Fire near Happy Valley and Igo has postponed a military service for him at the Northern California Veterans Cemetery.

Wife speaks about husband's drowning during search and rescue effort on Lake Shasta

https://krcrtv.com/archive/wife-speaks-about-husbands-drowning-during-search-and-rescue-effort-on-lake-shasta_20160513010842844

September 27th 2013 by Stephanie Montano

SHASTA LAKE, Calif. - The death of 63-year-old volunteer diver Ken Smith has left a mark on Shasta County.

Smith died trying to salvage a robot that was being used to find a man who had drowned in Lake Shasta earlier this month.

The loss of Smith has been a big one and has left a lasting impact on many throughout the Northstate community.

"He was always right there, always there all night long no matter what it took to find somebody and bring them home safely," said Ken's wife Cheryl Smith.



Ken Smith, with family

Cheryl Smith said her late husband's helping heart was passed down through the generations.

"His father, during the 1964 flood of Eel River, after saving his family went back and saved several other families, they had to help them out," said Cheryl. She said that is what sparked Ken's passion for helping others.

Ken served in the military and started his diving career in Vietnam where he helped rescue those who had gone missing.

In 1972, he came to Redding and in 1974, he and Cheryl were married. Ten years later they bought a marina.

"He was back into his passion again doing boat work and diving," said Cheryl. She said Ken enjoyed diving and enjoyed putting his skill to good use.

"If somebody was broke down half the time he never charged he would just help," said Cheryl.

Cheryl said Ken was an expert diver who was very cautious, which is why she never thought anything would go wrong.

When he left that day to help, it was just another day for Ken to do what he loved. She said she is thankful for the many people who have reached out, all of them reminding her what a great man Ken Smith was.

"He always did it with a smile on his face and he never hesitated to help a person," said Cheryl. "That was his motto in life -- the more people [he helped], the more enriched life he led, that was him." Ken Smith's death is still under investigation.

Deputy John Zufall, who dove down to try and save him has since recovered after being taken to Travis air force base for treatment.

Investigation into Lake Shasta diver's death details fatal mistakes

<http://archive.redding.com/news/investigation-into-lake-shasta-divers-death-details-fatal-mistakes-ep-345546812-353534101.html/>
April 04, 2014 By Clay Duda

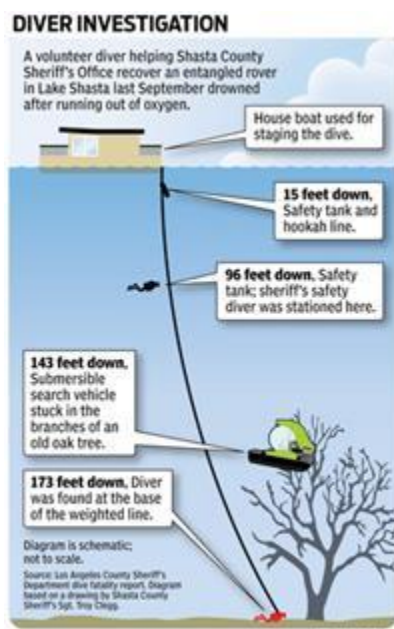
A volunteer diver tapped by the Shasta County Sheriff's Department for a recovery mission during the search for a drowned Oakland teen entered the waters of Lake Shasta without enough oxygen to complete the dive and drowned after his tank ran out of air 173 feet below the lake's surface, an investigation into the death has found.

Salvage diver Ken Smith, 65, of Shasta never planned to dive that deep in his efforts to recover a submersible search vehicle that became entangled in the branches of an old oak tree last September, but complications and



Ken Smith

other issues during the dive contributed to the fatal outcome, according to an investigative report by the Los Angeles County Sheriff's Office.



The Record Searchlight obtained the report this week after filing a California Public Records Act request with Shasta County last month. Shasta County had asked the Los Angeles department to conduct an independent investigation of the incident.

"Although Mr. Smith tried to conduct the dive safely, several factors were not fully understood or they were ignored," the report noted. Those included not carrying enough air for a 143 foot dive to where the robot was stuck, an air tank that was not filled completely, the choice to use standard air instead of a safer Trimix breathing mixture and an inadequate safety plan.

Despite more than four decades of diving experience, investigators concluded that Smith was not experienced enough and lacked ample training to plan

such a technical recovery operation.

His wife, Cheryl Smith, has since filed a claim against Shasta County alleging officials failed to follow safety procedures during the operation that could have prevented his death. The county rejected that claim last month, clearing the way for a possible court challenge.

In an e-mail Sheriff Tom Bosenko declined to comment for this story citing legal concerns. In March he said he disagreed with the allegations and that his department was prepared to "vigorously defend our case."

The state's Division of Safety and Health cited the county for failing to have an injury and illness prevention plan in place for the sheriff's department following the diver's death, fining it \$375 for the violation.

According to the LASO report, a critical factor in Smith's death was his decision to breathe standard air during a dive below 130-feet. At those depths he would have been susceptible to the disorienting and unpredictable effects of nitrogen narcosis, a condition resulting from breathing gas under pressure that can affect a diver's judgment and often is equated with feeling drunk.

After entering the water, Smith and sheriff's safety diver, officer John Zufall, followed an anchored line down to 100 feet below the surface. From there Smith continued on, heading down the line toward to entangled machine. But he never stopped or attempted to free the vehicle, instead descending directly to the lake's floor more than 170 feet below the surface.

"At a depth of 169 to 172 feet, nitrogen narcosis could certainly have affected Ken Smith's judgment and skill," the report said. "Mr. Smith spent over five minutes on the bottom when he should have been ascending."



Shasta County Sheriff's Office boats assist in the recovery of a drowning victim's body on Lake Shasta in September. Volunteer diver Ken Smith, 63, of Shasta died Sept. 8, 2013 while helping the Shasta County Sheriff's Office at Lake Shasta. Smith was found at a depth of 173 feet during an attempt to salvage a borrowed underwater remotely-operated vehicle that was brought in to find the drowning victim.

At those depths he would have also been consuming oxygen at a rate six times faster than if he had been on the surface, depleting his air supply.

According to interviews with officers, Smith was well aware of the dangers. He told officials before the dive that he would be unable to retrieve the machine if it was 160 feet deep, but at 140 feet he felt he could handle it.

Yet even diving to those depths on regular air was a questionable decision, according to dive instructor Curtis Wilson.

"Once you pass 130 feet nitrogen narcosis is a big deal," said Wilson, who owns Scuba World Sacramento. "There's no way to be certain, but there's no question in my mind that he was so narced' at (140 feet) that he didn't know what he was doing and kept going, not realizing he was in trouble."

At those depths Smith was out of sight and had no way to communicate with his safety diver or others on the surface. At 9 minutes and 22 seconds into the dive, Zufall told investigators he could still feel Smith on the line.

About a minute later, that changed.

"I either knew that he let go of the line to go un-foul the rover or, you know, I was thinking he was having some type of problem down there," Zufall told investigators. He then give Smith "a minute or two to work" before breaking protocol and diving deeper, finding him unresponsive on the lake bed.

The report noted that Zufall was unable to fulfill his role as a safety diver due to limited visibility during the dive. "After the two divers separated, Mr. Smith and Officer Zufall had no way to communicate with each other, and thus were diving alone," the report continued. "When Mr. Smith did not follow the dive as planned, Officer Zufall had no way of knowing Mr. Smith was in trouble on the bottom of the lake."

The closest emergency helicopter was 18 minutes away. Once on the surface, officers began administering CPR in an effort to revive Smith. He was later pronounced dead at Mercy Medical Center. Suffering from decompression sickness, Zufall was flown to Travis Air Base in Fairfield where he underwent two five-hour stints in the decompression chamber.

Following the death, the Shasta County Sheriff's Department decided to send its divers through "rescue-diving" training, something it had put off for years due to budget concerns.

UPDATED: Salvage diver dies in search for drowning victim » Redding Record Searchlight

<https://www.scubaboard.com/community/threads/recovery-diver-drowns-shasta-lake-california.465141/>

LAKE SHASTA - One of two divers participating in the recovery of an 18-year-old man who drowned Friday also drowned Sunday during the search effort. Deputies said the man, who was identified as Ken Smith, was a salvage diver.

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That friend was saved, but Sok didn't resurface, sheriff's deputies have said.

The lake's depths range from 190 feet to 250 feet in the search area.

You hear about not making a second victim, and in this case there are three.

1. A friend was struggling in the water, so a friend jumped in and didn't resurface.
2. A salvage diver tried to untangle a ROV that was searching for the first victim, and drowned;
3. The safety diver that brought up the salvage diver suffered DCS. Whew.

What depths were they dealing with? I know our dive team needs to have a chamber and a bell past 100'.

They found him at -173ffw. The fouled ROV had active depth showing on the display, so the depth in the area was known ahead of time.

Well that raises quite a few questions about the dive itself. That's quite deep for a PSD to go...

The late Mr. Smith was not a PSD. He was a local guy who "assisted" law enforcement from time to time. His association came from being conveniently in the area and being a local fixture raising ski and pontoon boats as part of a small cottage business.

As I mentioned in my posting above, you see this often enough that it has stopped surprising me. OSHA, the Federal Code of Regulations, the Association of Diving Contractors etc all address "working dives" quite specifically: type of accepted equipment, minimum size of crew, and qualifications. The problem is the gray area of the perceived overlap between Public Safety and Commercial.

Part of it is in the interpretation of the regulations. The rules are quite clear, any dive below 100 ft or any dive with planned decompression (i.e., 'water stops') is required to have a DDC onsite and ready for use. How many local law enforcement and volunteer groups regularly train with surface-decompression, let alone own a chamber and bring it to the site? We regularly see so-called "tech diving" allowing the use water stops, most of which is done without a chamber onsite. In a "commercial" setting this would never be allowed.

The unfouling of an ROV is by all definitions a "working dive". If the vehicle could be fouled, then you could get fouled heading down to that same location on bottom.

For that matter, the recovery of a body should be classed a working dive. I would submit that any dive that goes beyond simply looking at something should be considered a "working dive" and therefore carried out under the rules as defined in the Federal Code of Regulations and the other regulatory standards. But that is not the way it works currently. Using this case as the ongoing example at hand, the local agencies, choosing not to undertake the effort themselves, allowed a local guy with good intentions and by all accounts a highly thought of person, to perform a dive that was well outside the parameters of either legal compliance or good common sense. Whether Mr. Smith had done this before, whether or not he was a good guy and a fine human being, or whether he was being paid or a volunteer, the incident occurred.

The regulations are also quite clear on the DPIC. On any diving operation, there is a legal and regulatory requirement to designate (in writing) a Designated-Person-In-Charge (DPIC). This is a qualified person who is deemed the onsite person responsible for the safety and well-being of the diver or divers. The DPIC is the ultimate buck-stop for the life-support activity. In the event of an incident, this is the head that rolls.

For this particular operation, WHO WAS THE DPIC OF RECORD?

I agree with you on that. There are not many dive teams that can support deep dives. 170ft is deep for a body recovery, especially in a freshwater lake where it is dark and cold. Our dive team has the equipment, but I have yet to see it used after 2 1/2 years on the team. The part of Lake Huron that our county lays is only 140-150 at the very deepest, and that's a isolated spot where no one goes. In the river, depths reach 90ft and we have 3-5 knot current on a average day. I say that should also be classed as a working dive.

Amen, bruddah. Rivers are a high variable set of conditions on any given day. I've been on jobs where something as simple as a large tree branch rolling across the bottom snagged a dive umbilical and everything changed right now. The best one was a dive in the Hells Gate area of New York about 25 years ago. The tide started running as Long Island Sound began to drain through the Gate. All of a sudden the diver (a very experienced hand) began to sound like he was losing his stuff. Hose is peeling off the deck and he is losing it. We couldn't hang on and were in the process of trying to cleat off a bight. He was now in a panic and was getting rag-dolled across the bottom.

It finally sorted itself out (through none of our doing) and we hauled him in. Turns out a bed mattress had wrapped around his hose like a folded taco tortilla and the mass took off with him slowly. It finally slid down to him and he was able to duck and shrug it off and it tumbled off and away in the dark.

That was it and it was over. You just never know.