

Gerald Leduc - Aug 3, 2008 – Tiverton, Rhode Island

Tiverton Firefighter Dies While Attempting Water Rescue

<http://www.abc6.com/news/rhodeisland/26227984.html>

Aug 3, 2008 **Tim Martin**



ABC 6 News has learned that a Tiverton Firefighter has died while attempting a water rescue in Stafford Pond.

The firefighter was one of the divers out searching the waters of the pond looking for a man that went missing, when he lost his own life. Fire Officials tell ABC 6 news that it was around 7 p.m. Sunday night telling them that a man had fallen into the water.

Shortly after 8 p.m. one of the rescuers was taken away from the pond by ambulance. Fire officials are not releasing the name of the rescuer that has died at this time.

ABC 6 reporter Parker Gavigan has more...

Services set for Tiverton firefighter

http://www.eyewitnessnewstv.com/Global/story.asp?S=8781463&nav=menu20_3

Aug 5, 2008

TIVERTON, R.I. (WPRI) - Funeral arrangements are set for the firefighter who died while trying to find a missing boater.

Fire Chief Robert Lloyd says Gerald Leduc, a 25-year veteran, died Sunday after running into difficulty while diving in Stafford Pond for the missing man.



The search began Sunday when emergency officials received calls from people on shore who heard a woman screaming for help.

Rescue crews raced to the pond but were unable to locate the missing man, Joseph Traficante. Lloyd says he's sad for Leduc's family and planned to meet with them Tuesday.

Firefighter Gerald Leduc, 53, died Sunday evening while diving for a missing boater, who fell or jumped from a fishing boat during a storm and is presumed drowned.

Meanwhile, emergency officials have resumed their search of the pond for Traficante.

A wake for Gerald Leduc will be held Thursday from 4 until 9 p.m. at the Auclair Funeral Home, 690 So. Main St., Fall River. The funeral mass will be held on Friday at St. Theresa Church in Tiverton at 10 a.m..

In lieu of flowers, donations may be made to the Gerald Leduc Memorial Fund, c/o any branch of Bank of America.

Search for missing boater continues

<http://www.turnto10.com/northeast/jar/news.apx.-content-articles-JAR-2008-08-04-0002.html>

Monday, Aug 04, 2008



TIVERTON, R.I. -- Emergency crews continue to search for a missing boater from Rehoboth.

Crews are searching Stafford Pond Tuesday in Tiverton, just south of Route 24 and west of Route 81.

Firefighter Gerald Leduc, 53, died Sunday evening while diving for 39-year-old Joseph Traficante, who fell or jumped from a fishing boat during a storm and is presumed drowned.

The accident happened Sunday while Traficante and his girlfriend were fishing, said Deputy Chief Kurt Blanchard of the Environmental Police. After Traficante went into the water, his girlfriend went in but could not locate her boyfriend.

Leduc, who lives near the pond, was off-duty. He drove a watercraft to the scene after hearing a report about the missing man, said Denise deMedeiros, who was with Leduc and saw him enter the pond with his diving gear. "It didn't seem like he was in distress," she told The Newport Daily News.



Divers from Westport, Mass., soon spotted Leduc motionless in the water.

He was taken to St. Anne's Hospital in Fall River, Mass., and pronounced dead. An autopsy will be done to determine the cause of death.

Dozens of firefighters gathered around the shore Monday while four dive teams searched the pond for Traficante, Blanchard said.

RI firefighter dies while trying to rescue boater

<http://www3.whdh.com/news/articles/local/BO84055/>

TIVERTON, R.I. -- Tiverton authorities have identified an experienced firefighter who died while searching for a missing boater.

Fire Chief Robert Lloyd says Gerald Leduc, a 25-year veteran, died yesterday after running into difficulty while diving in Stafford Pond for the missing man. The search began yesterday when emergency officials received calls from people on shore who heard a woman screaming for help. Rescue crews raced to the pond but were unable to locate the missing man, Joseph Traficante. Lloyd says he's sad for Leduc's family and planned to meet with them today. Meanwhile, emergency officials have resumed their search of the pond for Traficante.

Veteran firefighter dies in attempted rescue

Body recovered, believed to be that of missing boater

<http://www.eastbayri.com/detail/76703.html>

By Tom Killin Dalglish and Jill Rodrigues

TIVERTON — A veteran Tiverton firefighter, Gerald R. Leduc, 52, lost his life Sunday night while searching for a missing boater in a tragedy at Stafford Pond that began at 7 p.m. Sunday when the missing man was reported to have gone into the water from his boat as it was heading back to shore.

About 11:50 a.m. Tuesday, a body, believed to be that of the missing man, was recovered from the pond in 20 feet of water, 100 to 125 yards off the western shoreline on the pond. The body has been turned over to the medical examiner for positive identification, and the family has been notified, said Tiverton Police Chief Thomas Blakey.

An immediate search for the missing man, Joseph Traficonti, 38, of Rehoboth, Mass., was



Gerald R. Leduc, seen here in an early photo, served 25 years with the Tiverton Fire Department.



By 11:00 a.m. the Stafford Pond boat launch area off of Old Stafford Rd was closed off to only family, friends and rescue workers
Photo by Christine Hochkeppel

launched Sunday after he left his boat and disappeared, with multiple emergency personnel and nearby boaters involved. The search continued all day Monday, ceased for the night about 7 p.m., then resumed again Tuesday morning at 7:30 a.m. It was discontinued around noon when the body was recovered.

Gerald R. Leduc
One of those searching Sunday night was Mr. Leduc, who lived near the

pond. Mr. Leduc was a certified scuba diver and emergency medical technician, and after hearing about the missing boater, joined in the search just getting underway by emergency personnel.

A Tiverton Fire Department spokesman, Lieutenant Mark Reimels, said Monday morning that Mr. Leduc went into cardiac arrest at some point Sunday evening while diving during the search and was transported thereafter to the hospital, where he passed away.

Lt. Reimels said Mr. Leduc's death was believed to be "the first line-of-duty death the Tiverton Fire Department has ever had." Mr. Leduc had been "a certified diver for many, many years," he said. Lt. Reimels said Mr. Leduc "was a happy guy, always willing to help. He was involved with the Tiverton Fire Department for many, many years. That's what he did, what he loved."

"He's going to be missed. The department is not going to be the same without him," Lt. Reimels said. "We all worked together."

Mr. Leduc started his career with the department as a volunteer over 25 years ago. He has two sons, ages 19 and 22, one of whom is a EMT.

A wake in his honor is scheduled for Thursday evening, with funeral services set for Friday morning, followed by a funeral mass at 10 a.m. at St.



Tiverton Firefighter Gerald Leduc died Sunday night while attempting to rescue a boater who went overboard on Stafford Pond.

Theresa's Church, with a processional thereafter to Notre Dame Cemetery for burial.

The search for the missing man



A Dartmouth rescue boat trolls Stafford Pond in search of the missing boater on Monday
Christine Hochkeppel

"The firefighter who died is just breaking our heart," said Joan Traficonti, the mother of Joseph Traficonti, the missing man. The now-ended search for Mr. Traficonti had involved a massive effort since it began on Sunday — six dive teams from nearby communities, a helicopter, an estimated six to eight rescue boats in the water at various times, special underwater cameras and probes, with the state police and state office of

emergency management and an estimated 50 to 75 search personnel all participating.

The Department of Environmental Management (DEM) was lead agency in the effort and has custody of the boat Mr. Traficonti was operating at the time the incident occurred.

Mr. Traficonti was accompanied in his boat, a 10 to 11 foot craft with a six horsepower outboard, by Brandi Hurst, 31, of East Providence. The two had just become engaged last Sunday, said Ms. Traficonti, Mr. Traficonti's mother. "He went out fishing and was very happy," said Ms. Traficonti. Lt. Reimels confirmed the couple had packed a lunch and were



Christine Hochkeppel
(From left) Sgt. Steven P Criscione of DEM police, Lt. Mark Reimel of the Tiverton fire dept, and Lt. Patrick Jones of the Tiverton police dept hold a press conference about the rescue operation on Monday morning.

fishing, something that Mr. Traficonti had done before at Stafford Pond, said his mother.

For reasons that are unclear — whether to swim or due to a storm accompanied by rain that officials said had blown through about that time — he left the boat as it was heading back to the dock where it had put in at Old Stafford Road. Mr. Traficonti's mother said his girlfriend "tried to save him with all her might."

Lt. Reimels said Ms. Hurst called 911, then put on a life jacket and went into the water to look for him. "She did some heroic work," said Mr. Traficonti's mother.

Mr. Traficonti was known as an avid fisherman; "he went fishing all the time," said a friend of 20 years, Thomas Rose, 36. Mr. Rose said Mr. Traficonti operated a business known as "Joe Traf's Truck Repair." Mr. Rose said he took a call on his cell phone about 3 p.m. from Mr. Traficonti, though the two did not talk.



Christine Hochkeppel

A Dartmouth rescue boat trolls Stafford Pond in search of the missing boater on Monday.

Mr. Rose said Mr. Traficonti "treated all his customers like friends. They were important to him." He said Mr. Traficonti "was my best friend, always there to lend a helping hand. He'd just call to check in to see how your day was going." He said Mr. Traficonti loved motorcycles, camping, fishing, and being with friends.

Mr. Rose said Mr. Traficonti has a sister and two nephews under ten years old — "those kids were his world."

Stafford Pond is about 700 to 900 acres in size, and about 20 feet deep, said Sergeant Steven P. Criscione of the Department of Environmental Management police, which has jurisdiction over the scene and is investigating the accident. "Visibility is bad" in the water, he said.

Statement from Tiverton Town Administrator James C. Goncalo:

It is with great sadness and regret that I have to report that the Town of Tiverton has lost Firefighter Gerald R. Leduc as a result of a tragic accident. The accident occurred on Sunday evening August 3, 2008.



Christine Hochkeppel

Rescue boats troll Stafford Pond in search of the missing boater.

At approximately 7:56 p.m., the Tiverton Fire Department received a 911 call for two persons in the water on Stafford Pond. Upon arrival one person was removed from the water at the surface and a second victim was reported under the water for an undetermined amount of time.

Divers were dispatched and put into the water and within a few minutes

a distress call was received from a rescue boat that one of the responding divers was in distress. That diver was Gerald R. Leduc, a senior member of the Tiverton Fire Department with 25 years of service. He was removed from the water, given advanced life support and transported to St. Anne's Hospital where he was pronounced dead. The incident and the circumstances surrounding the firefighter's death are still under investigation. Efforts to recover the person in the water are continuing.

Services honoring Gerald R. Leduc

- Wake: Thursday, Aug. 7, 2008, 4 to 9 p.m., Auclair Funeral Home, 690 South Main Road, Fall River (508) 673-4366.
- Funeral Service: Friday, Aug. 8, 2008, 8 a.m., Auclair Funeral Home, 690 South Main Road, Fall River.
- Funeral mass: Friday, Aug. 8, 2008, 10 a.m., St. Theresa's Church, 265 Stafford Road, Tiverton (401) 624-8746.

Processional and burial: Friday, Aug. 8, 2008, beginning at 11 a.m. (approx.) from St. Theresa's Church, to Notre Dame Cemetery, 1540 Stafford Road, Fall River (est. distance two miles).

RI firefighter dies while trying to rescue boater

http://www.boston.com/news/local/rhode_island/articles/2008/08/04/tiverton_firefighter_dies_during_rescue_1217845198/

August 4, 2008

TIVERTON, R.I.-Emergency crews continued to search Stafford Pond for a missing boater Monday, one day after an off-duty firefighter died while trying to save the man.

Firefighter Gerald Leduc, 53, died Sunday evening while diving for 39-year-old Joseph Traficante, who fell or jumped from a fishing boat during a storm and is presumed drowned. A cause of death has not been determined. "Everyone is hurting," Fire Chief Robert Lloyd said. "Everyone is trying to sort out their feelings."

The accident happened Sunday while Traficante and his girlfriend were fishing, said Deputy Chief Kurt Blanchard of the Environmental Police. After Traficante went into the water, his girlfriend went in but could not locate her boyfriend.

Leduc, who lives near the pond, was off-duty. He drove his jet ski to the scene after hearing a report about the missing man, said Denise deMedeiros, who has with Leduc and saw him enter the pond with his diving gear. "It didn't seem like he was in distress," she told The Newport Daily News.

Divers from Westport, Mass., soon spotted Leduc motionless in the water. He was taken to St. Anne's Hospital in Fall River, Mass., and pronounced dead. An autopsy will be conducted to determine the cause of death. Dozens of firefighters gathered around the shore Monday while four dive teams searched the pond for Traficante, Blanchard said.

One resident, Joseph Arruda, watched from his van parked near a boat ramp. Arruda credited Leduc with saving his life in 1982 by tying a tourniquet on his leg to stop the bleeding after a car accident. "If it wasn't for him, I wouldn't be here today," Arruda said.

Fallen Tiverton Firefighter was Known as Good Neighbor, Great Friend

<http://www.abc6.com/news/26253099.html> VIDEO

Aug 4, 2008 John Eagan

The American flag flies at half-staff Monday outside the Tiverton Fire Department and at the home of veteran firefighter Gerald Leduc.

52-year old Leduc died Sunday night after going into cardiac arrest while he was searching Stafford Pond with several other divers, looking for a missing boater.

Neighbors say he was known as a good neighbor and friend who could fix almost anything and was always there when you needed him. Fellow Tiverton firefighters are coming to terms with the loss of the 24-year veteran, the first firefighter killed in the line of duty in the town's history. ABC 6 reporter Jennifer Gannon has more on Leduc's legacy...

To the end, firefighter spent his life trying to help others

http://www.projo.com/news/content/leduc_08-05-08_KLB40F5_v49.403fbad.html

August 5, 2008 By Amanda Milkovits Journal Staff Writer

TIVERTON, RI - Sunday was Gerald Leduc's day off from the Tiverton Fire Department, so he was zipping around Stafford Pond on his jet ski when he detoured over to his best friend's dock, barely a half-mile from his own.

Leduc and Philip Godek had known each other going way back to when Leduc was a young volunteer firefighter. He'd been eager to become a certified scuba diver in case the department formed a dive team and needed to search for people in the water. Godek, the owner of Pisces Diving Services in the north end of town, was Leduc's instructor, and they became best friends.

The old friends chatted for a while, and then Leduc, 52, jetted home. And then his pager went off. Someone was in trouble in the pond. They were calling in dive teams from Little Compton and Fall River.

Tiverton had never formed a dive team, but Leduc was still certified. He called his fire chief and volunteered to join the search. He grabbed his diving gear and was gone.

A little while later, a neighbor noticed sirens and lights down at the end of the pond and called Godek. "We'll call Gerry and find out what's going on," Godek told his wife.

Someone else answered Leduc's cell phone. He'd had a heart attack as he prepared to dive in search of a missing Rehoboth fisherman.



Members of the Tiverton Fire Department come to shore after searching Stafford Pond yesterday for a missing boater. At right is Tiverton Fire Chief Robert Lloyd. The Providence Journal / Bob Breidenbach

Godek was one of the first at the St. Anne's Hospital emergency room in Fall River, where Leduc had been taken Sunday night. "I spent 45 minutes holding his hand last night," Godek said yesterday. "It doesn't seem real. It never does."

The flag outside Leduc's home at the edge of Stafford Pond was at half-staff yesterday, while across the pond, divers from four different agencies continued to search for the body of 38-year-old Joseph Traficante. Divers carefully dodged stumps and rocks, but the murky water didn't yield any sign of the missing man.

The flag at Fire Station 4, where Leduc had worked, was lowered. Black bunting was draped over the doorways of Fire Station 3, a short distance from the pond. The Fire Department that he'd served for 36 years, as a volunteer and paid firefighter, was planning his funeral yesterday afternoon. Fire Lt. Mark Reimels said he believed that Leduc was the first Tiverton firefighter to die in the line of duty. Leduc died of an apparent cardiac arrest soon after he'd gotten into the water, he said.

Leduc had joined the department at age 16 and then was hired in 1984. Godek was there at Town Hall when Leduc was sworn in. Back then, his friend had the nickname "Lucky Leduc," Godek said, though the reasons for it have vanished in time.

Leduc was one of the indispensable people in this small town, where he was 1 of just 32 paid firefighters. He wore his Fire Department pager all the time, just in case he was needed, Godek said. The circumstances of his death -- volunteering to save someone -- were characteristic of him. "He was just one of those guys who just wanted to help people," Godek said.

Leduc was close to his sons, Michael, 22, who is studying to be a paramedic, and Jonathan, 20, who loves computers. "He was really the kind of father who would do anything for his kids," Godek said.

Leduc was divorced and was dating Denise deMedeiros, the School Committee chairwoman, whom he'd met when she was a nurse at the emergency room at St. Anne's Hospital. DeMedeiros declined to speak at Leduc's home yesterday.

He had many friends, Godek said, and he was known for his sense of humor, and for his love for hot tubs, especially his own eight-person tub installed on a pavilion at his house.

Some stories combine both humor and hot tubs. Leduc loved staying at Loon Mountain -- he didn't ski, but he loved the hot tub there. He was in the hot tub when a stranger asked him about the ski trails, Godek remembered. Leduc made up some good stories about conditions on the trails, until deMedeiros called his bluff, and the stranger scurried away in confusion.

Leduc thought it was " Godek remembered. hilarious. "He said, 'I really had that guy going!'

Godek spent yesterday pacing inside his quiet shop, alone with the dive equipment and fire extinguishers from his other business, Tiverton Fire and Safety, which he'd bought from Leduc about 25 years ago.

They'd worked together for years on jobs filling and fixing fire extinguishers for clients in Rhode Island, Massachusetts, and southern New Hampshire, always staying at hotels with hot tubs. Leduc was using his scuba-diving skills to work on pool drains for a friend's pool company. Godek teased him about scuba diving in swimming pools.

On Friday, Leduc had spent the day at Godek's shop working on 40 fire extinguishers. He told Godek he'd be back on Monday to finish the remaining 25. All day, Godek waited, unable to work, believing somehow that his best friend would walk in the door.

The wake for firefighter Gerald Leduc will be held Thursday from 4 to 9 p.m. at Auclair's Funeral Home, 690 South Main St., Fall River. A procession will leave the funeral home at 8 a.m. Friday to St. Theresa's Church, 265 Stafford Rd., Tiverton, for the funeral Mass at 10 a.m. The funeral procession and Mass were originally scheduled at 10 a.m., and noon, but were changed to the earlier times. Burial is at Notre Dame Cemetery, 1540 Stafford Rd., Fall River. A memorial fund has been set up in Leduc's name at all Bank of America branches.

With reports from staff writers Chloe Thompson and Gina Macris.
amilkovi@projo.com

Searchers mourn firefighter, find no trace of missing man

http://www.projo.com/news/content/FIREFIGHTER_DIES_08-05-08_3TB3SMI_v25.403ca9f.html

August 5, 2008 By Chloe Thompson Journal Staff Writer

TIVERTON -- As they mourned Sunday's death of a veteran firefighter and dive team member in the search for a missing boater on Stafford Pond, searchers yesterday found no sign of the missing fisherman despite an all-day effort.

Firefighter Gerald Leduc, 52, of 95 Forand Lane, a certified diver who had participated in several Fire Department dive operations, died of apparent cardiac arrest after entering the water, according to fire Lt. Mark Reimels. Reimels said he believes Leduc's death is the first in the line of duty at the Tiverton Fire Department.

"I don't think it's really hit us yet," he said at a morning news conference as the search continued for Joseph Traficante, 38, of Rehoboth. As the search went on for Traficante after Leduc's death, Reimels said, "That's what he was doing, that's what we're continuing today."

Searchers have "one area of significant interest," believed to be where the boater was last in the water as reported by his girlfriend, Brandi Hurst. Traficante and Hurst were fishing from an 11-foot boat Sunday when a storm passed through, according to Sgt. Steve Criscione of the state Department of Environmental Management.

The search was suspended around 6 p.m. and is due to resume today at 8 a.m. Criscione said the storm produced "heavy rain and some wind." The water in the pond is around 82 degrees, he said.

Officials couldn't say why Traficante left the boat, but they didn't believe he fell overboard due to the storm. However, the boat was headed back to the ramp where they had launched it, presumably to get away from the storm, he said.

When Traficante did not reappear in the water, Hurst called 911 and put on a life jacket to jump in the water after him, officials said. Six dive teams, underwater cameras and underwater probes were employed yesterday afternoon to aid in the search for Traficante. "It's a big body of water to search," Criscione said, estimating the water to be 20 feet deep in some places. The pond is a popular fishing spot that spans about 700 acres and is stocked by the DEM with trout. Underwater visibility is bad more than 50 feet offshore, he said.

Divers from Fall River, Westport, Portsmouth, the Rhode Island State Police and Dartmouth, Mass., all worked on the search. They would go into the pond for hour-long stints before breaking because of fatigue. Officials said the murky water is full of stumps and rocks that slow the process. Leduc worked at Station 4, on East Road, and had been a firefighter for 25 years. He began as a volunteer when he was 16, and at least one of his two sons has followed in his footsteps as an EMT.

A memorial fund has been set up in memory of Leduc, called the Gerald Leduc Memorial Fund. Contributions can be made at any Bank of America. cthompson@projo.com



Lt. Mark Reinels, of the Tiverton Fire Department, addresses the media yesterday on the search for a missing boater on Stafford Pond. The Providence Journal / Bob Breidenbach

Body found in Tiverton pond

<http://www.turnto10.com/northeast/jar/news.apx.-content-articles-JAR-2008-08-05-0012.html>

Aug 05, 2008

TIVERTON, R.I. -- Rescuers searching a Tiverton pond on Tuesday found the body of a Rehoboth man who was reported missing over the weekend.



Gail Mastrati of the state Department of Environmental Management said searchers recovered the body of Joseph Traficante, 39, at about noon in 20 feet of water at Stafford Pond.

The search for Traficante began Sunday when he went into Stafford Pond from a fishing boat. Officials said Traficante left the boat on his own, perhaps to swim. He never surfaced, and his girlfriend called for help.

Meanwhile, the family of firefighter Gerald Leduc, who died during the initial rescue effort, is planning a funeral Mass on Friday at St. Theresa's Church in Tiverton.

Leduc, who was off-duty, put on scuba gear to assist with the search. He was soon spotted motionless in the water and rushed to a hospital, where he di

Body recovered on Stafford Pond; services planned for fallen firefighter

http://www.heraldnews.com/police_and_fire/x436049115/Body-recovered-on-Stafford-Pond-services-planned-for-fallen-firefighter

Aug 05, 2008 By Will Richmond **Herald News Staff Reporter**

Tiverton — Fire departments across the northeast will help the town mourn the loss of fallen firefighter Gerald R. Leduc. Judy Ferreira, an administrative assistant for Fire Chief Robert D. Lloyd, said a processional march has been scheduled for Friday morning.

The march will begin after a 10 a.m. funeral Mass, at St. Theresa Church, 265 Stafford Road. It will end at Notre Dame Cemetery, where Leduc will be laid to rest. "From what I'm hearing, there will be a couple of fire departments from out of state, and we do expect the turnout to be quite large," Ferreira said Tuesday.

She asked that members from participating fire departments gather Friday

morning at the New Harbour Mall in Fall River no later than 8:30 a.m. From there participants will be bused to the church.

Ferreira said the mood around the Fire Department remained somber as preparations were being made for Leduc's services. "I still think everyone is kind of working to prepare and everyone is trying to deal with their emotions right now," Ferreira said.

Leduc died Sunday evening from cardiac arrest after attempting to locate a man who fell from his boat on Stafford Pond.

The search for Joseph Traficonti, 39, of Rehoboth, appears to have come to an end Tuesday afternoon. Rhode Island Department of Environmental Management spokeswoman Gail Mastrati said a body was found in Stafford Pond shortly after noon. She said the body was found in an area 120 to 125 feet off of the pond's western shore and about a quarter-mile north of the Stone Bridge Fire District water treatment plant, which was being used as a staging area during the search efforts. Mastrati said the body was located in an area about 20 feet deep and was in the prime search location.

A spokeswoman for the Rhode Island Medical Examiner's office said Tuesday afternoon that no positive identification has been made on the body.

Deputy Chief Kurt Blanchard, of the DEM's law enforcement unit, said the search for the missing body was complicated by underwater conditions. "The difficulty was due to the visibility under the water," Blanchard said. "Typically, that pond is pretty clear, and I don't know if it was because of recent weather or what but the conditions were quite murky. But through the use of a camera and continual diving, we were able to locate the body."

A woman identified as Traficonti's girlfriend, Brandy Hurst, was rescued from Stafford Pond Sunday evening.

Investigators said Hurst called 911 before attempting to find Traficonti, who went overboard as the couple attempted to return to a boat ramp on Old Stafford Road as a fast-moving storm moved through the area, dumping heavy rains.

A 25-year veteran of the town's Fire Department, Leduc began as a 16-year-old volunteer who along the way earned certification as a scuba diver and as an emergency medical technician. He was also treasurer of the Tiverton Firefighters Local 1703.

Leduc, who is believed to be the first Tiverton firefighter to die while in the line of duty, is survived by his sons Michael and Jonathan Leduc, his parents, Shirley Grota and Romeo Leduc, a stepsister Linda Adams and his companion, Denise DeMedeiros.

A funeral for Leduc will be held Friday at 8 a.m. at the Auclair Funeral Home, 690 S. Main St., Fall River. Visitation hours will be held Thursday from 4 to 9 p.m.

A memorial fund has also been established in Leduc's name. Donations to the Gerald R. Leduc Memorial Fund can be made at any Bank of America branch.

E-mail Will Richmond at wrichmond@heraldnews.com.

Missing boater's body found in pond

http://www.projo.com/news/content/body_found_08-06-08_59B4C6N_v8.86e5a8.html

August 6, 2008 By Brandie Jefferson Projo.com staff writer

A search team yesterday recovered the body of a man who went off his boat into Tiverton's Stafford Pond Sunday, according to Gail Mastrati, spokeswoman for the Department of Environmental Management.

Joseph Traficante, 38, of Rehoboth, was on the pond fishing with his girlfriend when a storm rolled in. As they headed back to the dock, Traficante somehow ended up in the water, according to investigators.

Authorities say that at about 7 p.m. on Sunday, Traficante went into the water. They do not believe he fell, but they do not yet know why he left the boat. His girlfriend, Brandi Hurst, called 911 when Traficante did not emerge from the water. Then she put on a life jacket and went in after him, but could not find him.

Tiverton firefighter Gerald Leduc died of a heart attack during the initial phase of the search. Leduc, 52, was a certified diver and had conducted similar rescue operations in the past. He had worked with the Tiverton force in various capacities since he was 16.

Traficante's body was in the vicinity of a specific search area that was narrowed down with help from Hurst. The body was found shortly after noon yesterday in about 20 feet of water, according to Mastrati. The body was about 100 to 125 yards off the west shore of the pond, and about a quarter-mile north of a water treatment facility.

The state medical examiner's office took custody of the body for an autopsy. bjeffers@projo.com

Body of missing RI boater found in pond

<http://www.eyewitnessnewstv.com/Global/story.asp?S=8796669&nav=F2DO>

Updated: Aug 6, 2008 07:26 AM CDT



TIVERTON, R.I. (AP) - Rescuers searching a Tiverton pond have found the body of a boater who went missing there this weekend.

A spokeswoman for the state Department of Environmental Management says searchers recovered the body of 39-year-old Joseph Traficante yesterday in 20 feet of water at Stafford Pond.

Leduc, who was off-duty, put on scuba gear to assist with the search.

The search started Sunday evening when Traficante went into the pond from a fishing boat. Officials said Traficante left the boat on his own, perhaps to swim.

He never surfaced, and his girlfriend called for help.

Meanwhile, the family of firefighter Gerald Leduc, who died during the initial rescue effort, is planning a funeral Mass on Friday in St. Theresa Church in Tiverton.

Leduc, who was off-duty, put on scuba gear to assist with the search. He was soon spotted motionless in the water and rushed to a hospital, where he died.

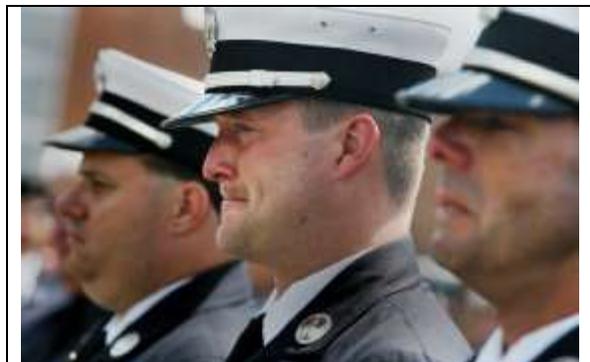
Firefighters bid farewell to a brother, Gerald R. Leduc

http://www.projo.com/news/content/FIREFIGHTER_FUNERAL_08-09-08_G1B5QAE_v26.3a45be3.html

August 9, 2008 By Gina Macris Journal Staff Writer

TIVERTON — The Fire Department radio crackled: "Last call to roll call number 14."

Mourners heard the broadcast at the gravesite of Lt. Gerald R. Leduc. While Leduc's family and fellow firefighters gathered around his casket in Notre Dame Cemetery, across the state line in Fall River, a dispatcher formally recalled the rescue effort that had begun at 6:56 p.m. last Sunday with an order to "respond to Stafford Pond for a man drowned."



Tiverton firefighter Lt. Mark Reimels, center, joins others at the graveside service for Lt. Gerald R. Leduc. Providence Journal / John Freidah

"With regret, the Tiverton Fire Department announces the death of our brother, Gerald R. Leduc," the dispatcher continued. "His efforts will be an inspiration to us all," the broadcast concluded.

A bell pealed a total of 40 times, twice repeating the traditional signal for a fallen firefighter, which had been included in the broadcast, "Five five, five five. Five five, five five. 55-55."

For hours yesterday, Fire Chief Robert Lloyd had led an honor guard of a dozen men in precision movements as they accompanied Leduc's coffin from the Auclair Funeral Home in Fall River to a funeral attended by a thousand people in Tiverton, and then to the gravesite.

One last time, they removed the flag-covered casket from a 1942 fire truck that had been loaned by the Providence Fire Department.

After setting the coffin down, the honor guard folded the flag. Lloyd knelt and presented it to Leduc's elder son, Michael, 22, who is training to become a paramedic.

Another member of the department presented Michael with a ceremonial firefighter's hat bearing the number 14 and the rank of lieutenant — a posthumous promotion.

After the bagpipe players' rendition of "Amazing Grace" had faded to a whisper, after the last tone of the bell, firefighters from Tiverton and elsewhere, filed by the casket, leaving white gloves in their wake. Then it was over. And Lloyd and his men broke down, sharing their grief in embrace after embrace with each other and with firefighters from other communities. All week, preparations for the pageantry of Leduc's funeral had given members of the Fire Department a focus to distract them from the void left by death.

More than 500 firefighters — some from Boston, New York and as far away as the state of Georgia — showed up at St. Theresa Church at Stafford and Eagleville roads. The turnout would have been larger had not many firefighters already begun traveling to a convention that begins on Sunday, according to George Farrell, chief of the Providence Fire Department.

Farrell, walkie-talkie in hand, coordinated logistics as one school bus after another disgorged uniformed men, and a few women, in front of the church. One of them was Bill Carreira, a captain in the fire department of Kingsland, Ga., who had worked side by side with Leduc in the former Stone Bridge station in Tiverton. "He helped me get where I am today. I wouldn't miss this for the world," said Carreira as he waited outside the church for the funeral procession.

Col. Brendan Doherty, the superintendent of the Rhode Island State Police, pulled up. Rhode Island Attorney General Patrick C. Lynch walked into the church. U.S. Rep. Patrick Kennedy followed. Members of the Town Council, the School Committee and other local officials were already seated.

More than an hour earlier, two fire trucks had pulled into the parking lot, raising their ladders in an arch over the entrance to the church.

When the cortege arrived, in a procession from the funeral home about three miles away, Leduc's casket passed beneath a huge American flag that had been suspended between the ladders.

St. Theresa's pastor, the Rev. Peter Andrews, and one of Leduc's colleagues, Douglas Busse, eulogized him in remarks heard inside the church and outside in the parking lot.

Leduc, 52, was on his day off last Sunday, jet-skiing on Stafford Pond, when the pager he wore signaled that there was a missing boater in the area. Leduc, a 24-year veteran of the department and a certified diver, suffered an apparent heart attack after donning his gear and getting into the water. "There's not a moment he didn't stop offering himself to this town," said Father Andrews.

He said Leduc found his fulfillment in enriching the lives of others and setting an example for those he leaves behind. "He called on us to be better than we already are," said Father Andrews, who led prayers for all firefighters who risk their lives. Busse said that at Christmas time, Leduc arranged for Santa to ride on the back of a fire truck to bring cheer to local children. In his mind's eye, Busse said, he could see Leduc presiding over a clambake at his home, going back and forth to make sure his guests had all they needed. "He tried to take care of his boys," Busse said, referring to Michael Leduc and his younger brother, Jonathan, who both lived with their father.

When he was afraid, Busse said, he took his strength from Leduc, who was so in tune with his job that he had a sixth sense about emergencies. More than once, in the middle of the night, Leduc, half dressed, would wake him, before an emergency call ever came in, Busse said. "I'm glad I knew him," Busse said. "I'm grateful for the memories," he said.

As the funeral concluded, firefighters who had followed the ceremony on outdoor loudspeakers lined up behind a couple dozen flag bearers and stood at attention. In the crowd was Shadow, a Dalmatian belonging to the East Providence Fire Department. "He kind of brings a smile to people's faces on a sad occasion," said East Providence Battalion Chief Robert Jobin. Dalmatians, the traditional mascots of firefighters, used to protect the horses that drew fire wagons before the advent of the gasoline engine, Jobin explained.

As the funeral cortege moved from the church to the cemetery, more than a mile away, stillness fell over the procession, despite a helicopter overhead and the gentle hum of the vehicles, including 10 motorcycles in the lead. People lined Stafford Road to watch.

Some homes, with flagpoles in the yards, flew the American flag at half staff.

One woman held up a sign that said, "Thank you, Gerald R. Leduc."

— With reports from staff writer Chloe Thompson gmacris@projo.com

Tiverton honors a fallen firefighter with a "last call"

<http://www.eastbayri.com/detail/76837.html>

8/9/08 [By Tom Killin Dalglish](#)

Funeral ceremonies imbued with symbolism, firefighters' sense of brotherhood

TIVERTON — A trumpet sounded the broken notes of taps at 12:49 p.m. on Friday, August 8. Minutes later, still piping a refrain from the lament "Amazing Grace," a lone bagpiper walked towards the crest of a hill in Notre Dame Cemetery in Fall River, away from his pipe and drum band and the mourners gathered graveside for the burial of Tiverton firefighter Lieutenant Gerald R. Leduc.

Funeral ceremonies for Lt. Leduc, who died last Sunday evening in the line of duty in a rescue effort at Stafford Pond, were drawing to an end.

A symbolic "last call"

A dispatcher's voice then broke in over fire department radios nearby, with a symbolic ceremonial last call. "Fire alarm to Roll Call 14. Fire alarm to Roll Call 14," the dispatcher said. "Roll Call 14" was Lt. Leduc's badge number. There followed an all stations tone, then an alert burst, as the dramatic re-enactment continued. The dispatcher's voice broke in again. "This is WPMC 283, the Tiverton fire department announcing Signal 5-5-5-5. All units stand by for department message." After a 10 second pause, the message was repeated.

("WPMC 283" is the radio call signal for the Tiverton Fire Department, an official later explained, and signal "5-5-5-5" is code, widely used throughout the country, announcing a line-of-duty death.)

From a script, the radio dispatcher then read the following message twice to the assembled mourners.

"Fire alarm announcing the recall of still box 1295 [the incident number], transmitted on August 3, 2008 at 1865 hours, to respond to Stafford Pond for a possible drowning victim. The signal 5-5-5-5 has been transmitted, the



**Tiverton Fire
Department Chief
Robert Lloyd
embraces Fred
Almeida after the
burial ceremony for
Sgt. Gerald Leduc
Photo by Christine
Hochkeppel**



At graveside, Tiverton firefighters (from front) Jason Andrade, Paul Volaro, Peter Manchester Jr., and William Paniccia hear the dispatcher read "The Last Call."

Photo by Christine Hochkeppel

message is as follows: with regret the Tiverton Fire Department announces the death of our brother Lieutenant Gerald R. Leduc of Station 4, appointed to the department May 9, 1984. His efforts are an inspiration to us all."

Minutes later the burial ceremony ended. Among the final honors, Tiverton Fire Chief Robert D. Lloyd presented the folded American flag, that had covered the casket, Lt. Leduc's helmet bearing the number "14," and the medal of valor and the medal of honor that had been awarded posthumously to Lt. Leduc,

to Lt. Leduc's two sons, Michael 22, and Jonathan, 19.

As a closing gesture, Tiverton's firefighters all placed their white gloves atop the casket, never to be used for another purpose and intended to be interred with the casket. Mourners embraced and consoled each other.

In all the details — in the appearances, staging, sequence of events, words and music, and the presence of what police estimated were about 2,000 to 2,500 fire and safety personnel from out-of-state — the bonds that hold firefighters together were everywhere evident. It was an occasion filled with symbolism, tradition, and sadness, and it clearly left an imprint. "That was one dedicated fireman," said one graveside mourner, Marie Lewis, as the burial ceremony began. "We lost a good man there."

Lieutenant Leduc, a certified diver, died from apparent cardiac arrest last Sunday evening shortly after a diving search had gotten underway for a missing boater on Stafford Pond. He is believed the first ever firefighter in the town's 300 year history to have died in the line-of-duty. He was a veteran of over 25 years with the department.

The body of the boater, Joseph Traficante, 38, of Rehoboth, was recovered from the pond Tuesday around noon.



Pallbearers carry casket holding Lt. Gerald R. Leduc from St. Theresa's Church following funeral mass. Photo by Christine Hochkeppel



Antique firetruck serving as caisson, carrying casket of Lt. Gerald R. Leduc, passes Tiverton Station No. 2 (headquarters) for last time, as firefighters from Wakefield and Portsmouth salute.

Photo by Tom Killin Dalglish

The ceremonies and procession

Preparation for the elaborate and ritualized funeral ceremonies in honor of Tiverton's fallen firefighter was a week-long endeavor by Tiverton officials. Procession routes were planned and changed. The town council met in special session Wednesday night. Pall bearers from Tiverton's honor guard, and members of the police color guard, practiced their moves. Stafford Road, the route to be traveled on foot from St. Theresa's church to the cemetery, was cleaned and swept.



Lt. Leduc's bunker pants and coat hang from back of Engine No. 1, the fire truck (his "piece") to which he was assigned. **Photo by Christine Hochkeppel**



Captain Bob Bradley, of the Central Falls Fire Dept., adjusts the pipes of a fellow bagpiper. The Rhode Island Professional Firefighters Pipes and Drums, rehearsed at Winnisimmet Plaza while waiting to join procession from the funeral home to St. Theresa's Church. **Photo by Christine Hochkeppel**

A wake for Lt. Leduc was held Thursday evening at Auclair Funeral Home at 690 South Main Street in Fall River. A funeral service took place at the same location on Friday morning at 8 a.m..

While the Friday morning service was taking place, the nearly 2,000 or so firefighters and other safety personnel from other towns and states were gathering at Harbour Mall in Fall River. From there they were bused to St. Theresa's Church, where they mustered in rows to await the procession of



In front of St. Theresa's church flag hangs between ladder trucks, ladders fully extended. **Photo by Christine Hochkeppel**

vehicles coming from the funeral home— with the caisson carrying the flag-draped casket.

After the funeral service, the vehicle procession from Auclair's in Fall River to St. Theresa's in Tiverton for the funeral mass followed a route that, by intention, lead it past Tiverton Fire Station No. 2 at 85 Main Road (fire department headquarters). The cortege was led by a 10 motorcycle escort, and

included 56 personal cars of family and fire department members and 4 police cruisers.

Engine No. 1, to which Lt. Leduc had been assigned (referred to as his "piece" by firefighters) was draped in black. At its rear on hooks were hung the fallen firefighter's bunker pants, coat, and his helmet (#14).



An estimated 2,000 firefighters from in and outside the state mustered, some with flags, in front of entrance to St. Theresa's church.

Photo by Christine Hochkeppel



Westport Fire Department Chief William Tripp salutes as Lt. Leduc's coffin is carried into the church

Photo by Christine Hochkeppel

Behind and following Engine No. 1 was an antique fire truck — Tender No. 7, a 1942 General Motors truck on loan from the Providence Fire Department Honor Guard — that was serving as a caisson and carried the casket, flanked by six standing Tiverton firefighters.

As the caisson passed Tiverton Fire Station No. 2, firefighters temporarily staffing the station from the Wakefield and Portsmouth Fire Departments, mustered in line out front and saluted.



The procession presses on to the cemetery in Fall River.
Photo by Christine Hochkeppel

After the last passing of Station 2 on Main Road, the cortege turned east on Hooper Street, then went north into Fall River on Mariano Bishop Boulevard to William Canning Boulevard, then returned south to Stafford Road. At Winnisimet Plaza on Stafford Road, at Chester Street, a short distance down from the Fall River line, the cortege stopped briefly.

There it was joined by the Tiverton Police Department color guard and the bagpipe and drum marching band, which took up position in the lead of the caisson, behind which were assembled members of the Tiverton fire department, all marching on foot in formation for the last several hundred yards to the church. After them followed the 56 vehicle cortege.

Along the way a scattering of townspeople lined the roads, some with flags, some holding their hands over their hearts as the procession went by.



Bagpipers lead fire truck caisson carrying casket to graveside. Photo by Tom Killin Dalglish



Caisson firetruck carrying casket enters Notre Dame Cemetery after funeral mass. **Photo by Christine Hochkeppel**

The placement of the caisson and the firefighters was symbolic, said Lieutenant David Homen, one of those involved in coordinating the occasion. "We're protecting our fallen members," he said.

At St. Theresa's Church the entire cortege was met by the mustered firefighters from out of town and state, arrayed in an estimated seven long rows that ran the length of the church parking lot.

The funeral mass



Lt. Leduc's sons at graveside, Michael, 22 (left), with medals, and Jonathan, 19, with helmet and flag, and Lt. Leduc's mother Shirley Grota at right. **Photo by Christine Hochkeppel**

"Today we say farewell, but we do not say good-bye," said St. Theresa's Reverend Peter Andrews to the guests that filled the church, and firefighters under tents outside who were listening on loudspeakers.

Reverend Andrews lauded Lt. Leduc's commitment to service, saying the one thing he'd heard again and again people say about him was "there was not a moment he didn't stop offering himself." "If Gerry were standing before me," Reverend Andrews said, "I believe he would be

honored by what is happening today."



At graveside, Tiverton firefighters (from front) Jason Andrade, Paul Volaro, Peter Manchester Jr., and William Paniccia hear the dispatcher read "The Last Call."

Photo Christine Hochkeppel

Douglas Busse, a senior firefighter and close friend of Lt. Leduc's of many years, said "if you knew Gerry intimately in any way, you'd know he was a good man." Mr. Busse said "Gerry would arrange for Santa Clause to ride on the back of a ladder truck,"

and he spoke of Lt. Leduc's clambakes, often attended by many people. "I came to respect Gerry, and although I'll miss him, I was so glad I knew him," Mr. Busse said. "It's hard to give our life for someone else. That day like any day Gerry went out to help."

Graveside

From St., Theresa's the police motorcycle escort, Engine No. 1 and the caisson proceeded on Stafford Road to Notre Dame Cemetery, one of the largest in Fall River with about 76,000 burials since 1888 and covering an estimated 40 to 50 acres. Lt. Leduc's burial site is a little over a mile east into the cemetery on a gentle western-facing slope just in front of a new mausoleum.

Shortly before reaching the burial plot the motorcade was joined again for the last few hundred yards by the bagpipe band, the color guard and fire department members. Following the burial mourners and guests were invited to White's Restaurant in Westport.



Firefighter David Haddad carries Lt. Leduc's helmet (#14), later presented by Tiverton Fire Chief Robert D.Lloyd to Lt. Leduc's two sons, Michael and Jonathan.

Photo Christine Hochkeppel



Tiverton Fire Department Chief Robert Lloyd embraces Fred Almeida after the burial ceremony for Sgt. Gerald Leduc

Photo by Christine Hochkeppel

Career Fire Fighter Dies While Diving for a Civilian Drowning Victim - Rhode Island

<https://www.cdc.gov/niosh/fire/reports/face200832.html>



Death in the Line of Duty...A summary of a NIOSH fire fighter fatality investigation

F2008-32 Date Released: October 8, 2009

SUMMARY

On August 3, 2008, a 52-year-old male fire fighter (the victim) died while diving during a search for a civilian drowning victim. The victim was found unconscious on the surface of the lake after he had descended in SCUBA gear trying to locate the civilian drowning victim. The victim was off-duty and had responded to the scene in his personal watercraft with his personal dive gear. The local fire department had already rescued one civilian from the surface of the lake using a fire department boat and had marked the approximate location of the recovery with a buoy and anchor. A civilian boat was utilized to transport the surviving civilian to a local marina while the fire department boat remained on the scene performing a surface search for the second civilian. The victim arrived on the scene, and after a brief conversation with the fire fighters on the boat, began his dive in the area of the buoy. The fire fighters on the boat observed the fire fighter descend and then communicated to divers arriving by another fire department boat that there was a diver under the water in the area of the buoy. The arriving divers observed the buoy and another object floating in the water in the area of the buoy and recognized that object as a diver's tank valve. After determining that the tank valve was the victim's, the divers tried to communicate with the victim and discovered he was unconscious, facedown with his regulator out of his mouth. A Mayday was radioed for a diver in distress and divers entered the water and were able to place the victim in an inflatable boat that was delivering additional divers to the scene. Resuscitation efforts were initiated and continued during transport to shore. The victim was transported to a local hospital where he was pronounced dead. Key contributing factors identified in this investigation include: inadequate capacity of the fire department to lead and conduct a technical rescue SCUBA diving operation, insufficient training and experience of the victim to

participate in a technical rescue diving operation, and the victim's physical health and condition which increased risks for an adverse health outcome.

NIOSH investigators concluded that, to minimize the risk of similar occurrences, fire departments should:

- **ensure that an effective incident management system is in place that supports technical rescue operations**
- **ensure that public safety divers are properly trained, equipped, and supported to perform public safety diving responsibilities**
- **ensure that a safety officer properly trained in the technical rescue field being performed is on scene and integrated into the command structure**
- **ensure that standard operating procedures regarding technical rescue capabilities are in place and enforced for all levels of water rescue specialty areas including SCUBA diving**
- **ensure a comprehensive risk-benefit program is in place prior to participating in specialty areas including technical rescue professional level operations**
- **ensure that programs are in place to provide for training and equipment (including vessels) expected for water rescue and the inspection, maintenance, testing, and replacement of water rescue equipment including SCUBA gear**
- **provide annual and periodic health, wellness, and fitness examinations with specific medical evaluations for fire fighters expected to perform technical rescues such as SCUBA diving**
- **adopt the International Association of Fire Chief's Zero-Tolerance Policy for Alcohol and Drinking to prohibit the use of alcohol by members of any fire or emergency services agency/organization at any time when they may be called upon to act or respond as a member of those departments. Departments should develop written policies and have procedures in place to enforce this policy**

Additionally, the following recommendations are preventative measures recommended by other fire service groups to reduce cardiovascular events among fire fighters. Fire departments should consider:

- **phasing in a mandatory wellness/fitness program for fire fighters to reduce risk for cardiovascular disease and improve cardiovascular capacity**

- **performing a preplacement and an annual physical performance (physical ability) evaluation for all fire fighters to ensure they are physically capable of performing the essential job tasks of fire fighting**
- **ensuring that physicians are knowledgeable about the physical demands of fire fighting and the components of NFPA 1582 and the additional medical and physical requirements of performing technical rescuer SCUBA diving**

INTRODUCTION

On August 3, 2008, a 52-year-old male fire fighter (the victim) died while SCUBA^a diving during a search for a civilian drowning victim. On September 16, 2008, the chief of the involved department requested NIOSH to assist in an investigation of the incident. On October 6–9, 2008, two safety and occupational health specialists from the NIOSH Fire Fighter Fatality Investigation and Prevention Program (FFFIPP) traumatic injury component in Morgantown, WV, and an investigator from the FFFIPP cardiovascular disease component located in Cincinnati, Ohio, traveled to Rhode Island to investigate the incident. The NIOSH investigators met with the fire chief and fire fighters from the victim's department, the police chief and detectives from the local police department, and divers from other local fire departments. Medical records were obtained from local medical providers, and contact was made with the medical examiner's office that performed the examination of the victim. NIOSH investigators reviewed the department's SOPs related to water rescue and incident command; the victim's fire fighting training records, SCUBA diving certificate, and water rescue training records (no other training data or SCUBA dive logs or dive computer information for the victim were available); witness statements; and the 911 dispatch tapes. Investigators visited the incident site and performed an inventory and took photographs of the victim's dive gear at the police department's evidence room. The victim's dive gear remained in the custody of the local police department after the incident and during the site visit. An evaluation of the victim's dive gear was later performed by a private forensic casualty investigation firm that specializes in SCUBA diving casualty investigations.

^a Self-contained underwater breathing apparatus (SCUBA) is an underwater breathing system where the inspired gas is delivered by a demand regulator and exhaled into the

surrounding water (open circuit), and the gas supply is carried on the diver' s back (NOAA Diving Manual)¹

FIRE DEPARTMENT

The department involved in this incident is a career fire department consisting of 32 members with 3 fire stations and serves a population of 17,000 residents in an area of 34 square miles. The department has a mutual aid agreement with neighboring departments for fire and rescue incidents. The department allows off-duty fire fighters to be placed back on duty during emergency incidents at the discretion of the chief.

The department is located near a busy harbor and has many bodies of water in their response area including shipping channels to the ocean, commercial waterways, canals and lakes. The department responds to approximately 12 marine/water rescue incidents per year. The department provides emergency water rescue services through fire department response with a 13-ft utility boat on a trailer housed with an engine company and has access to a larger boat through an agreement with the harbor master agency.

Training/Experience

The victim in this incident had approximately 25 years of experience as a professional fire fighter with this department. The victim held a certification as an emergency medical technician for the state of Rhode Island in addition to Hazardous Materials Operations Level and Fire Fighter Level 1 from the Rhode Island Fire Academy. In 1982 he was certified as an open-water diver through the National Association of Underwater Instructors. The victim did not have a dive computer on the day of the incident and diver logbook(s) were not provided to assess dive experience. The victim did not have documented training or certification in public safety diving.

The department had standard operating procedures regarding water rescue and boat usage and conducted frequent training on subjects such as ice rescue and small boat handling. Department SOPs were limited to surface water rescues. The incident commander and L-1 officer had experience in surface water rescue but lacked training on public safety diving oversight. The department did not have a formal or recognized technical rescue SCUBA diving team, and relied on mutual aid divers to perform technical rescue SCUBA diving resources through a formal mutual aid agreement.

SCUBA EQUIPMENT

The SCUBA equipment used by the victim in this incident was personally owned by the victim. After the incident, the equipment was taken to the local police department and stored under orders from the fire chief. NIOSH investigators examined the equipment and recommended that the equipment be evaluated by a qualified laboratory to determine working order.

The following equipment was present and examined and photographed by NIOSH investigators at the local police department evidence room:

- 1 open-circuit SCUBA demand regulator,^b having a single intermediate pressure hose with first-stage pressure reduction at the yoke^c (cylinder attachment) and second-stage regulator at the mouthpiece. The first-stage regulator and yoke were found mounted on the tank valve upside down ([see Photo 1](#)) resulting in the primary second-stage and octopus regulators presenting over the left side of the victim instead of the normal profile of having the regulators on the right side of the diver.
- 1 octopus rig^d
- 1 depth and pressure gauge pack (depth gauge did not have a maximum-depth indicator)
- 1 buoyancy compensator device (air bladders empty)
- 1 80-cubic feet, 3000-psi aluminum dive cylinder (empty). The cylinder had a mark indicating that the last hydrostatic test on this cylinder was performed on June 2006.
- 1 SCUBA mask (Lens was broken after the victim had been recovered.)

^b A demand regulator is an apparatus in which the gas supply is activated by the negative pressure associated with inhalation.

^c A yoke is a device for attaching the regulators to the cylinder(s) in order to make a leak-proof seal.

^d An octopus rig is a single-hose regulator with an extra low-pressure port where an additional second-stage regulator has been provided for emergency buddy-breathing air supply or in case of primary second-stage regulator failure.

The victim's weight belt was not recovered from the lake after being jettisoned by rescue divers. Investigators could not determine how much weight the victim was wearing. The victim did not have any thermal protection and did not have fins when he entered the water. The victim attempted to perform the dive without fins and likely would have had difficulty being able to move any distance, maintain buoyancy, or navigate underwater without having donned fins in open water such as this lake. The victim's air supply was reported as 700 psi at the point when the rescue divers removed him from the water. His total downtime was reported to be a few minutes, and the low volume of remaining air would call into question the thoroughness of an equipment precheck. The victim's first-stage regulator was found to be attached to the cylinder valve upside down ([see Photos 1, 2](#)) causing the profile of the primary second stage regulator and the octopus to be on the left side of the victim instead of the right. The open circuit SCUBA regulator that the victim was using had a standard 2nd stage mouthpiece and the regulator first stage should have been mounted so the second stage hose leads to the right and over the right shoulder of the diver. PADI Open Water Diver Manual² states, " the second-stage hose always goes over the right shoulder." This also resulted in the intermediate-pressure hose for the auto inflator profiling off of the victim's right side, resulting in an across-the-chest attachment point to the auto-inflator low pressure hose on the buoyancy compensator (BC) vest ([see Photo 1](#)). The mouthpiece of the primary regulator would have been in an upside-down configuration and presenting in an unconventional and possibly confusing manner. The auto-inflator button on the BC vest would not have been in the correct position due to it being pulled to the diver's right side. If the diver had experienced an unmanageable problem under the water and tried to locate the auto-inflator button to add air to his BC, the button might not have been located easily. The victim was found on the surface and some air was in his BC vest, but his weight belt had not been jettisoned which would have been one of a series of emergency procedures to ascend to the surface.

NIOSH investigators recommended that the department ship the victim's SCUBA gear to a qualified independent test facility to examine and provide an evaluation report. The department sent the gear to a private forensic casualty investigation firm and an equipment evaluation was performed. The evaluation report noted the following:

- Equipment inspected was in fair to poor condition.
- Air gas sample showed an excess level of carbon dioxide gas. The gas sample test revealed 1991.99 ppm of carbon dioxide gas. Concentrations greater than 1000 ppm

exceed the Compressed Gas Association (CGA) Grade E standard. Increased concentrations of carbon dioxide may have an adverse effect to SCUBA divers.

- The configuration of the air delivery system was rotated 180° from normal, resulting in the attached hoses presenting in an unconventional and possibly confusing manner.
- The SCUBA cylinder was within current hydrostatic test date, however the sticker evidencing a visual inspection expired the last day of May 2008.
- The air delivery system and its components showed a moderate level of corrosion. The first stage showed a moderate level of corrosion at the air filter.
- The primary second stage and alternate second stage both functioned as designed and were within manufacturer' s specifications, however, each second stage mouthpiece had a tear which could cause water intrusion into the path of airflow when used by a diver.
- The buoyancy compensator (" BC") was in poor condition. The BC large bore inflation hose contained a tear which prevented the BC from holding air as designed and therefore failed the function test.
- " The subject SCUBA equipment presents with several deficiencies rendering it unsafe for use, however, we cannot at this time directly attribute this SCUBA diver' s death to any of the aforementioned deficiencies."

WATER AND WEATHER CONDITIONS

The lake involved in this incident was approximately 476 acres with a maximum depth of 25 feet. The shoreline was composed of boulders and rocks with the bottom of the lake reported as layered silt and boulders. Surface water temperature was not reported but divers experienced a thermocline^e under under the surface. The water temperature at depth was not reported and visibility was reported to be between 0 to 3 feet at different depths.

Weather conditions on the day of the event were reported as

- air temperature of 71-76°F.
- winds from the northwest at 1 mph to 5 mph.³
- fire fighters reported during interviews that a strong thunderstorm was affecting the lake at the time of the initial rescue call and continued with heavy downpours during initial operations of fire department units arriving on scene.

° A thermocline is an abrupt change in temperature encountered at varying depths.

INVESTIGATION

At 1856 hours, on August 3, 2008, the local fire department was dispatched during a severe thunderstorm to a water rescue incident at a local lake for a reported drowning. The dispatched units were Engine 3, Rescue 1 (ambulance), Rescue 2 (ambulance), Squad 1, and Car 1 (chief of the department). Squad 1 responded with Marine 2 (a 13-ft utility boat used for water rescue stored at a station staffed with three personnel). The fire department responded to the emergency incident with their fire-rescue boat towed behind a support vehicle. The fire-rescue boat could not be observed in the mirrors of the support vehicle (due to the width of the tow vehicle), and the driver of the support vehicle had to open the rear doors to see the boat and trailer. The boat and trailer were not able to be backed down the boat ramp, and fire fighters had to move the boat and trailer by hand to launch the boat resulting in a delay in getting the boat launched. The fire-rescue boat was not equipped with water rescue gear such as throwable rescue devices and boarding ladders, but was equipped with personal flotation devices for the fire fighters.

Fire fighters from Squad 1 launched Marine 2 at a local ramp ([see Photo 3](#)), and then three fire fighters boarded Marine 2 and began trying to locate the victims on the lake. Marine 2 spotted a small aluminum boat with no one on board and a life jacket hanging on a fishing pole in the rear of the boat. The three fire fighters then saw a female in the water frantically waving. The crew rescued the female civilian and learned from her that there was another civilian, a male, who fell or jumped from the boat and was under the water. Marine 2 then transferred the female to another civilian boat and instructed them to take her to shore. One of the three fire fighters from Marine 2 was placed on another civilian boat to assist with search patterns, while Marine 2 obtained a small fender (air-filled bumper used for mooring protection between a boat' s hull and other boats or a dock) from the civilian boat and tied it to Marine 2' s anchor to mark the spot where they had picked up the female civilian.

The trolling motor on the civilians' aluminum boat had remained engaged, and the boat had motored away from the area on the lake where the female civilian was rescued. Marine 2, with two fire fighters, then started a series of surface search patterns to try and locate the male civilian.

Marine 2 was in radio communication with the chief of the department who had arrived on the scene and established command at the boat ramp. The chief requested mutual-aid

assistance from three neighboring water rescue/dive teams and asked that they respond to the command post. The responding resources included five members of local fire department dive teams in addition to two more rescue boats. The chief requested all responding dive team members and resources to respond to the command post at the boat ramp to organize the dive team operation. All of the mutual-aid dive team members responded to the command post. Command advised Marine 2 that two divers were on their way out to their location on the lake and directed Marine 2 to meet the divers, show them the location, then return to the boat ramp and pick up three more divers. Command requested a helicopter from the U.S. Coast Guard to provide an aerial search of the lake.

The fire fighter (victim) was off duty but in the area and communicated via portable radio with the chief that he “ could be out there with my diving stuff if you want.” Command advised him if he “ wished to that would be great.” The victim then radioed command that he was on a jet ski and “ could be there in no time at all.” Command advised the victim by radio to come to the command post at the boat ramp so “ we can keep track of everybody.” The radio message from command was acknowledged by the victim over the radio. The victim later radioed command that he was “ heading out there right now” and asked command for the location. Command radioed back to the victim asking his location. The victim radioed back that he was “ in the middle of the pond.” Command then advised the victim to assist L-1 (officer) on Marine 2. That transmission was not acknowledged by the victim. Communicating with Marine 2, the victim tried to find the fire department boat among other boats on the lake.

The mutual-aid boat had been launched with two divers and had left the boat ramp en route to Marine 2’ s location. Command then radioed Marine 2 that two divers were en route and directed Marine 2 to return to the ramp after the mutual-aid boat with divers arrived at Marine 2’ s location. Command advised that he had four or five more divers that Marine 2 needed to transport back out to the scene. Command then advised Marine 2 that a second mutual-aid boat was on its way out from the ramp with additional divers. Marine 2 advised command that they had made contact with the first mutual-aid boat and that they were going to start diving with two divers, and that the victim had his dive gear and was with them. Marine 2 also reported that they were on their way back to pick up the second crew.

The victim arrived on his personal watercraft with his dive gear and contacted L-1 (the officer) on Marine 2. The Lieutenant and fire fighter on Marine 2 stated during interviews that the victim asked them where the civilian was and stated “ I can get him.” L-1 reportedly

advised the victim “ No, wait, the divers are on their way out. Talk with them to see what your plan is going to be.” The victim reportedly responded “ No, I’ m going to stay right near the buoy.” L-1 then reportedly told the victim “ It’ s been almost an hour, don’ t bother, wait for ..[mutual-aid divers]” . The fire fighter on the boat reportedly also urged the victim not to go in but to wait on the other divers. The victim reportedly then stepped off his personal water craft with his SCUBA dive gear on (no fins) and submerged under the water.

The mutual-aid dive boat was approaching the scene and was met by L-1 in Marine 2. L-1 notified them of the diver (victim) in the water around the buoy. The dive leader asked who the diver in the water was, and after a short conversation with L-1, the dive team started to get ready to put their divers in the water while Marine 2 returned to the command post to pick up more divers. The mutual-aid dive boat motored slowly toward the buoy and noticed what they originally thought was another buoy floating in the water. They then realized it was a SCUBA tank valve and thought that the diver was on the surface looking down into the water. As they approached the diver, they struck the water with oars and made noise to try and gain his attention. The victim did not respond and the mutual-aid boat placed two divers in the water to rescue the victim. The victim was found face down in the water, unconscious with his second-stage regulator out of his mouth. A Mayday was transmitted for a diver in distress and additional divers were dispatched to assist along with Marine 2, which was turning around to return to the scene.

After jettisoning the victim’ s weight belt, the rescue divers initially tried unsuccessfully to get the victim into the rigid hull of the mutual-aid boat. An arriving inflatable-hull boat was called over to remove the victim and his gear from the water. The victim was placed in the inflatable boat and resuscitation efforts started while the boat transported the victim to shore. The victim was transported by a rescue unit (standing by, on the scene) to a local hospital where he was pronounced dead.

The male civilian’ s body was located on the lake bottom the following day by Rhode Island State Police using a side-scan sonar unit. State police divers then performed a SCUBA-dive operation and recovered the body from the lake.

CONTRIBUTING FACTORS

Occupational injuries and fatalities are often the result of one or more contributing factors or key events in a larger sequence of events that ultimately result in the injury or fatality. NIOSH

investigators identified the following items as key contributing factors in this incident that ultimately led to the fatality:

- Inadequate capacity of the fire department to lead and conduct a technical rescue scuba diving operation
- Insufficient training and experience of the victim to participate in a technical rescue diving operation
- The victim' s physical health and condition which increased risks for an adverse health outcome.

CAUSE OF DEATH

The cause of death was reported by the medical examiner as probable cardiac arrhythmia in a person with hypertensive cardiovascular disease in the setting of acute ethanol intoxication.

MEDICAL FINDINGS

The death certificate and the autopsy, completed by a medical examiner, listed as the cause of death “ probable cardiac arrhythmia in a person with hypertensive cardiovascular disease in the setting of acute ethanol intoxication.” Acute blood ethanol level was reported as 0.25%. Rhode Island state law defines legal intoxication at 0.08%. Pertinent findings from the autopsy include cardiomegaly (enlarged heart), left ventricular hypertrophy, minimal coronary artery disease, no coronary artery blood clot, and no pulmonary embolus.

The victim was 66 inches tall and weighed 179 pounds, giving him a body mass index (BMI) of 28.9. (A BMI of 25.0– 29.9 kg/m² is considered overweight.⁴) In 1992, the victim was diagnosed with hypertension (high blood pressure) and was prescribed a blood pressure-lowering medication. In 2003 an additional antihypertensive medication was prescribed. In 2006, the victim was medically cleared by his primary care provider for a commercial driver' s license to drive trucks. He did not report heart-related symptoms (chest pain, chest pressure, angina, shortness of breath on exertion, etc.) to his physician, his family, or the fire department.

Cardiovascular Disease. The autopsy showed the fire fighter had minimal cardiovascular disease, therefore it is very unlikely the victim suffered a heart attack. More likely, as noted by the medical examiner, the victim experienced primary cardiac arrhythmia.

On autopsy, the victim was found to have left ventricular hypertrophy (LVH) and an enlarged heart (cardiomegaly). These findings were not identified prior to his death. Hypertrophy of the heart' s left ventricle is a relatively common finding among individuals with long-standing high blood pressure, a heart valve problem, or chronic cardiac ischemia (reduced blood supply to the heart muscle).⁵ The victim' s 16-year history of high blood pressure was probably responsible for his LVH. Both LVH and cardiomegaly increase the risk for sudden cardiac death.⁶

RECOMMENDATIONS/DISCUSSIONS

Recommendation #1: Fire departments should ensure that an effective incident management system is in place that supports technical rescue operations.

Discussion: In the initial stages of a technical rescue, it is not uncommon for the incident commander to be playing catch-up implementing span of control and unity of command measures while expanding the command structure until enough management resources arrive on scene. An effective incident management system has two components: (1) the roles and responsibilities to be assumed by responders and (2) standard operating procedures to be used in the management and direction of emergency incidents and other functions.⁷ The incident management system should be tailored to the department' s resources and the likely types of response needed in the jurisdiction. Personnel should be thoroughly trained in and understand the incident management system and how they are to operate within the incident action plan. In his book, *Fire Department Safety Officer 2nd ed.*,⁸ Chief Dodson defines freelancing as “ a failure to work within the framework of an incident action plan. Fire fighters have been killed and seriously injured while engaged in a freelance operation, that is, an operation or task being performed unknown to the incident commander or other working crews.” Responders should understand that the check-in process allows incident command to maintain accountability and to ensure the safety of all responders.

In this incident, the chief of the department established command early in the incident at the boat ramp. The rescue boat and subsequent dive operation were not in view of or able to be easily controlled by the incident commander. A division-level officer on the dive site (or rescue boat) could have provided the incident commander with a more manageable span of control and unity of command functions. The fire department involved in this incident had standard operating procedures (SOPs) for water rescue but no SOPs for public safety

SCUBA diving operations or guidelines on coordination with mutual-aid dive teams. The victim responded to the scene and was placed on duty as is the practice with this department concerning off-duty response and participation on emergency incidents. Although the victim checked in with command via a portable radio, and was told by command to respond to the command post, command reportedly did not know that the victim had entered the water until after being told by L-1 on Marine 2. If the victim had responded to the command post as instructed, the command staff could have had an opportunity to evaluate his fitness for duty. Departments should have clear SOPs for personnel accountability and members should understand how the check-in process is an important component of accountability.

Recommendation #2: Fire departments should ensure that public safety divers are properly trained, equipped, and supported to perform public safety diving responsibilities.

Discussion: Public safety agencies that perform technical rescue water operations, including SCUBA diving, need to ensure that personnel receive the proper training, equipment, and continued support consistent with national consensus standards and agencies that provide recognized advanced levels of certification to safely perform this level of emergency service capability. Although recreational SCUBA diving certification programs provide a level of training that is fine for the recreational SCUBA diving community, these programs are not commonly designed for the extreme hazards regularly encountered with public safety water rescue and diving. According to NFPA 1006 Standard for Technical Rescuer Professional Qualifications, 2008 edition, annex A,⁹ “ The committee is of the opinion that Advanced Open Water certification provided by most nationally recognized certifying agencies (agencies associated with the Recreational SCUBA Training Council) build an acceptable foundation for the basic SCUBA skills required for dive technical rescuer. These courses do not, however, offer all of the skills required to meet these standards, and further training and experience in special hazards expected to be encountered in the AHJ’ s, territory should be sought.” In his book *Dive Rescue Specialist, Operational Training for Public Safety Divers*,¹⁰ author Steve Orusa notes, “ Inadequate SCUBA skills may be the leading cause of public safety diver accidents. In many cases, a problem developed that the diver was unable to solve due to a basic skill level. In most cases, divers had received either insufficient or nonexistent SCUBA skills refresher training after initial certification.” Public safety divers should have training and experience in a variety of environments likely to be encountered in rescue operations such as, ice, current, hazardous materials, dry suit, and lifting operations.

Public safety SCUBA diving is a technical skill that greatly exceeds recreational SCUBA certification levels. Annual confirmation of these skills should be performed to ensure continued competency. The level of knowledge, skills, ability, equipment and support required for a public safety SCUBA diver are outlined in NFPA 1006³, and NFPA 1670 Standard on Operations and Training for Technical Search and Rescue Incidents, 2009 edition.¹¹ Public safety diving requires emergency response teams with specific knowledge, skills, ability, equipment and continued support beyond basic fire fighter or emergency responder requirements to resolve unique or complex rescue situations. The dive team needs to stay current on training and annual skills evaluation. An example of an evaluation form to assess skills of public safety divers is provided in [Appendix 1](#). Technical rescue SCUBA dive teams need to stay current on new equipment available such as in mask communications and protective gear such as dry suits and redundant air supply options. Continued support for the team is an important component of the leadership of technical rescue teams. Once a team is properly trained and equipped, the organization must continue to provide support to maintain the technical rescue team' s operational readiness through continued training and review of program goals and needs. Inadequately trained divers should not be allowed to participate in technical rescue SCUBA diving incidents beyond their level of training.

In this incident, the victim held a recreational open water SCUBA diving certificate. This level of training is for recreational SCUBA diving and the training is limited to the level of training received at the time of the certification, which in this case, was more than 25 years ago. The attempted underwater rescue of the civilian was likely beyond the victim' s documented training and ability. Despite the certified training, the victim was not properly equipped to safely perform an underwater operation. The victim' s personally owned SCUBA equipment was evaluated and found to be in fair to poor condition and the breathing air would not have passed the CGA Grade E standards due to an excess of carbon dioxide gas.

Recommendation #3: Fire departments should ensure that a safety officer properly trained in the technical rescue field being performed is on scene and integrated into the command structure.

Discussion: Safety officers assigned to special operations incidents need to have the expertise in the specific technical rescuer field to effectively evaluate hazards and provide direction with respect to the safety of all personnel. A qualified fireground safety officer might not possess the expertise in water rescue or public safety diving and, therefore, might not

recognize or understand capabilities of the team members, limitations and hazards to divers, problems with equipment, or performance issues of personnel. NFPA 1521 Standard for Fire Department Safety Officer, 2008 edition,¹² notes, in cases where the designated ISO does not possess the technician-level training, appointing a technician level trained assistant or technical specialist with the necessary training will help satisfy the (safety) needs of the technician-level members.

Recommendation #4: Fire departments should ensure that SOPs regarding technical rescue capabilities are in place and enforced for all levels of water rescue specialty areas including SCUBA diving.

Discussion: Public safety diving operations are extremely complex and involve a tremendous amount of risk, but those risks can be eliminated, avoided, shared, or mitigated. A high proportion of dive operations can be categorized as high-risk/low-frequency events. Most agencies don't have enough water rescues or enough of the same type of water rescues to rely on call volume to prepare divers to perform safely and effectively. This makes preparation and training critical to safety and effectiveness. As in other special operations, risk management is a part of public safety diving operations.¹⁰ The safe and effective rescue or recovery of a water incident victim is dependent on a well coordinated relationship with other agencies sharing responsibility for providing service. Joint training exercises and scenario based training identifies the strengths and weaknesses in the response and provides areas to improve safety and effectiveness. Once identified, they can be cooperatively addressed by all agencies. Each team responding needs consistent standard operating procedures.

In this incident, the local fire department did have an SOP for water rescue (surface rescue), but did not have an SOP for technical rescue SCUBA diving. The department relied on mutual-aid departments to perform technical rescue SCUBA diving operations and lacked SOPs for the integration of the mutual-aid responders into the command system. Fire fighters interviewed from different departments reported problems with radio communications and coordination among the four departments on this incident. The victim was not a member of the mutual-aid SCUBA diving teams, and members of the dive team were not initially aware of the victim's actions or how they were supposed to integrate the victim's actions into their operation.

Recommendation #5: Fire departments should ensure a comprehensive risk-benefit program is in place prior to participating in specialty areas including technical rescue professional level operations.

Discussion: A program that measures the risk vs. benefit of a particular emergency operation is crucial to the safety of all emergency responders. A risk-benefit analysis must be performed on two levels: executive and on the scene. At the executive or strategic level, municipal and fire department leaders should identify their mission capabilities or plan for expanding their current capabilities through long-term funding, training, and continued support. Emergency incident risk-benefit analysis is performed on the scene, by the first arriving responders, and continued throughout the incident by the command structure.

Many communities rely on mutual aid or a combination of jurisdictional resources to provide response capabilities to complex rescue incidents such as high angle, hazardous materials response, trench or confined space, or other technical rescuer professional level operations such as public safety diving. A single community might not possess sufficient resources to effectively and safely provide a response level that would satisfy all the components of a safe, efficient, and effective emergency incident response. Fire department executives should perform a risk-benefit analysis and strategically plan for an emergency response that ensures the safety of all responders. For the more infrequent number of incidents requiring technical rescuer professional level operations such as SCUBA diving teams, preplanning and strategic level risk-benefit analysis can identify the level of response that can be safely performed and alternatives such as mutual aid or multi-jurisdictional, multi-agency capabilities that can be utilized.

In this incident the local fire department provided fire and rescue services to the local community as well as water rescue services through the use of two fire-rescue boats. The department responds to approximately 12 marine/water rescue incidents per year, ranging from boaters and swimmers in distress to ice rescues in the winter months. The department in this incident had mutual aid agreements with other local fire departments and provided this level of marine protection. The fire department did not have a formal SCUBA dive team and relied on mutual aid for this advanced level of technical rescue capability.

Emergency incident risk benefit analysis did occur on this scene and a quick response by the local fire department successfully rescued one civilian from the surface of the lake by fire fighters. Once the emergency incident shifted beyond the capabilities of the local fire

department, the mutual aid SCUBA diving team should have performed a risk-benefit analysis by team members who are trained at that level of technical knowledge and the risk evaluation information provided to the incident commander. This level of incident risk-benefit analysis takes into account many factors, such as switching from a rescue to recovery mode, and the dive team plans for the incident accordingly.

Recommendation #6: Fire departments should ensure that programs are in place to provide for training and equipment (including vessels) expected for water rescue and the inspection, maintenance, testing, and replacement of water rescue equipment including SCUBA gear.

Discussion: Organizations that provide water search and rescue operations need to ensure that all members who respond to or may respond to water rescue incidents should be sufficiently trained to the level that they are expected to operate. Surface water search and rescue operations require training on a multi-tiered level. NFPA 1670 Standard on Operations and Training for Technical Search and Rescue Incidents⁴¹ describes the levels for water rescue training as awareness, operations, technician, and dive level responsibilities.

In this incident, the fire department provided members with practical training on small boat handling and ice rescue. The members did not receive formal training for surface water rescue incidents which would have provided a safe training foundation for members of the department who frequently provide water rescue services for the local jurisdiction. The department responds to approximately 12 emergency incidents per year involving water rescue and should provide the appropriate level of training for expected areas of emergency response. The fire department responded to the emergency incident with their fire-rescue boat (13-ft utility boat) towed behind a support vehicle. The fire-rescue boat could not be observed in the mirrors of the support vehicle (due to the width of the tow vehicle), and the driver of the support vehicle had to open the rear doors to see the boat and trailer. The boat and trailer were not able to be backed down the boat ramp, and fire fighters had to move the boat and trailer by hand to launch the boat resulting in a delay in getting the boat launched. The fire-rescue boat was not equipped with water rescue gear such as throwable rescue devices and boarding ladders, but was equipped with personal flotation devices for the fire fighters. The fire fighters had to borrow a fender from a civilian boat to improvise a buoy and anchor to mark the location of the civilian victim. If the boat were equipped with a global positioning system (GPS), the fire fighters could have marked the exact location where they picked up the female civilian and would have been able to return to that spot after dropping

her off without impact by tide or wind. Minimum recommended equipment necessary for water rescue vessels are dependent on the mission capabilities and the forecasted needs for the locality, such as surface/swift water, surf rescue, ice rescue, and SCUBA diving operations.

Recommendation #7: Fire departments should provide annual and periodic health, wellness, and fitness examinations with specific medical evaluations for fire fighters expected to perform technical rescues such as SCUBA diving.

The purpose of periodic medical evaluations is to ensure that fire fighters have the ability to perform duties without presenting a significant risk to the safety and health of themselves or others. Guidance regarding the content and scheduling of periodic medical examinations for fire fighters can be found in NFPA 1582 Standard on Comprehensive Occupational Medical Program for Fire Departments.¹³ In addition to providing guidance on the frequency and content of the medical evaluation, NFPA 1582 provides guidance on medical requirements for persons performing fire fighting tasks. Applying NFPA 1582 involves legal and economic issues, so it should be carried out in a confidential, nondiscriminatory manner. Appendix D of NFPA 1582 provides guidance for fire department administrators regarding legal considerations in applying the standard. Technical rescue SCUBA diving candidates should be required to pass a more comprehensive medical evaluation that is administered by a physician familiar with diving medicine. A physician with a strong background in diving medicine and familiar with NFPA 1582 can help provide the technical rescue SCUBA dive team a more comprehensive evaluation of members and candidates.¹⁰ The Divers Alert Network¹⁴ is one resource technical rescue SCUBA diving teams can use to locate physicians familiar with diving medicine.

Recommendation #8: Fire departments should adopt the International Association of Fire Chief' s Zero-Tolerance Policy for Alcohol and Drinking¹⁵ to prohibit the use of alcohol by members of any fire or emergency services agency/organization at any time when they may be called upon to act or respond as a member of those departments. Departments should develop written policies and have procedures in place to enforce this policy.

Discussion: Fire departments should strictly prohibit any member of the fire department from responding to a call if they have been drinking. According to the International Fire Chief' s Association (IAFC) policy statement (#03.04) for Zero-Tolerance for Alcohol & Drinking in the

Fire and Emergency Service, “ if someone has consumed alcohol within the previous eight (8) hours, or is still noticeably impaired by alcohol consumed previous to the eight (8) hours, they must voluntarily remove themselves from the activities and function of the fire or emergency services agency/organization, including all emergency operations and training.” In addition, the IAFC policy states, “ No member of a fire & emergency services agency/organization shall participate **in any aspect of the organization and operation of the fire or emergency agency/organization** under the influence of alcohol, including but not limited to any fire and emergency operations, fire-police, training, etc.”

The following three recommendations are preventive measures recommended by other fire service groups to reduce the risk of on-the-job heart attacks and sudden cardiac arrest among fire fighters. The final recommendation addresses a potential safety issue related to this particular event. These recommendations are listed in order of priority.

Recommendation #9: Fire departments should consider phasing in a mandatory wellness/fitness program for fire fighters to reduce risk factors for cardiovascular disease and improve cardiovascular capacity.

Physical inactivity is the most prevalent modifiable risk factor for coronary artery disease in the United States. Additionally, physical inactivity, or lack of exercise, is associated with other risk factors such as obesity and diabetes.¹⁶ NFPA 1500 Standard on Fire Department Occupational Safety and Health Program⁷ and NFPA 1583 Standard on Health-Related Fitness Programs for Fire Fighters¹⁷ recommend a wellness program that provides health promotion activities for preventing health problems and enhancing overall well-being.

In 1997, the International Association of Fire Fighters and the International Association of Fire Chiefs published a comprehensive Fire Service Joint Labor Management Wellness/Fitness Initiative¹⁸ to improve fire fighter quality of life and maintain physical and mental capabilities of fire fighters. Ten fire departments across the United States joined this effort to pool information about their physical fitness programs and to create a practical program for the fire service. They produced a manual and video detailing elements of such a program. Fire departments should review these materials to identify applicable elements. Other labor and management negotiated programs, developed for large city departments, can also be reviewed as potential models.

Recommendation #10: Fire departments should consider performing a preplacement and an annual physical performance (physical ability) evaluation for all fire fighters to

ensure they are physically capable of performing the essential job tasks of fire fighting.

NFPA 1500^z requires fire department members who engage in emergency operations to be annually evaluated and certified by the fire department as meeting the physical performance requirements identified in paragraph 8-2.1.

Recommendation #11: Fire departments should consider ensuring that physicians are knowledgeable about the physical demands of fire fighting and the components of NFPA 1582 and the additional medical and physical requirements of performing technical rescue SCUBA diving.

Frequently, private physicians are not familiar with a fire fighter' s job duties or with guidance documents such as NFPA 1582¹³. To ensure physicians are aware of these guidelines, we recommend that fire departments provide contract and private physicians with a copy of NFPA 1582¹³ and a SCUBA diving medical clearance form. Lastly, we recommend that all return-to-work clearances be reviewed by a fire department-contracted physician. Thus, the final decision regarding medical clearance for return to work lies with the fire department with input from many sources, including the fire fighter' s private physician.

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INVESTIGATOR INFORMATION

This investigation was conducted by Stephen T. Miles and Jay Tarley, Safety and Occupational Health Specialists with the NIOSH Fire Fighter Fatality Investigation and Prevention Program (FFFIPP) traumatic injury component, located in Morgantown, WV, and Tommy Baldwin, Safety and Occupational Health Specialist with the FFFIPP Cardiovascular Disease Component, located in Cincinnati, Ohio. An expert technical review was conducted by Captain Steven Orusa of the City of Waukegan Fire Department, and Assistant Fire Chief, Beach Park Fire Department, Beach Park, Illinois. Chief Orusa is also the author of Dive Rescue Specialist, Operational Training for Public Safety Divers. An equipment evaluation was performed by Craig Jenni with Dive & Marine Consultants International, Inc., Boca Raton, FL. This report was authored by Stephen T. Miles.

APPENDIX

I.A.D.R.S. Annual Basic Scuba Skills Evaluation



Diver's Name: _____ Department: _____

Air Consumption: Start _____ psi / Finish _____ psi Time: Start _____ / Finish _____ / Total _____

Water Depth: _____ Pool / Open Water (circle one) Examiner: _____

Task grading: S = Satisfactory N = Needs Improvement (specify) N/A = Not Applicable (use for equipment only)

Equipment Handling and Set-Up

- properly assembles equipment (basic gear / specialty gear)
- shows familiarity and comfort with equipment
- properly protects equipment (i.e. tank valve / regulator)
- review (line & hand signals / air consumption rates / buddy awareness / emergencies / diver log)

Watermanship Skills

- 500 yard continuous forward stroke swim - no swim aids for time (refer to grading criteria)
- 15 minute tread / last 2 minutes with hands out of water (refer to grading criteria)
- 800 yard snorkel swim (refer to grading criteria)
- 100 yard inert diver rescue tow (refer to grading criteria)

Skin Diving Skills

- mask clearing
- snorkel clearing (popping & expansion)
- snorkel without mask (led by partner, 1 lap)
- fin kicks (flutter / dolphin) one length each, using mask and snorkel
- in water surface dives (head first / feet first)

SCUBA Diving Skills

- entries (giant stride / seated or controlled entry)
- neutral buoyancy control (oral / power) inflation
- dry suit buoyancy control and emergency procedures (i.e. hose disconnect or flooding)
- regulator clearing (blowing / purging) and retrieval
- regulator without mask (led by partner, 1 lap)
- full face mask (removal / switch to regulator / clearing full face mask / replace full face mask)
- descent procedures (signal / check time & air / raise inflator hose / feet first descent / clear ears)
- ascent procedures (signal / check time & depth / + buoyancy / raise inflator hose / ascend @ 20ft/min)
- air sharing at depth and during ascent
- buddy breathing at depth and during ascent
- emergency swimming ascent procedures (simulate out of air / signals / ascends / continuous exhaling / surfaces / inflates BC orally using bobbing technique)
- emergency buoyant ascent procedures (simulate out of air / signals / drops weights / ascends / continuous exhaling / surfaces / inflates BC orally using bobbing technique)
- weight belt (removal / replacement) on surface and bottom
- buoyancy control device (removal / replacement) on surface and bottom
- OPTIONS: Blackout Mask / Night Dive / Navigation / Confidence Obstacle Course

Performance

Comments: _____

Equipment Care and Storage

- properly disassembles equipment
- cleans and restores equipment properly

Additional copies available at no charge via the International Association of Dive Rescue Specialists webpage. Visit www.IADRS.org

Appendix. Annual Basic SCUBA Skills Evaluation.
(Courtesy of International Association of Dive Rescue Specialist)

PHOTOS AND DIAGRAMS



Photo 1. Victim' s SCUBA gear. First-stage regulator (A) attached to tank valve upside down, resulting in the intermediate-pressure auto-fill hose (B) profiling across the victim' s chest instead of over the left shoulder. Primary second-stage and octopus regulator (C) incorrectly profiling off the left side of the victim resulting in the incorrect mouthpiece orientation (upside- down exhaust valve), possibly creating a breathing air complication underwater.

(Photo by NIOSH.)



Photo 2. First-stage regulator attached at the cylinder valve incorrectly. The regulator block to the right of the valve should have been rotated 180 degrees so the second-stage hoses appearing at the top of this picture would have profiled at the bottom or the diver' s right side.

(Photo by NIOSH.)



Photo 3. Boat ramp where rescue boats were launched and the location of the command post. The dive site is not visible due to distance and the land mass on the right side of the picture.

(Photo by NIOSH.)

The National Institute for Occupational Safety and Health (NIOSH), an institute within the Centers for Disease Control and Prevention (CDC), is the federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness. In fiscal year 1998, the Congress appropriated funds to NIOSH to conduct a fire fighter initiative. NIOSH initiated the Fire Fighter Fatality Investigation and Prevention Program to examine deaths of fire fighters in the line of duty so that fire departments, fire fighters, fire service organizations, safety experts and researchers could learn from these incidents. The primary goal of these investigations is for NIOSH to make recommendations to prevent similar occurrences. These NIOSH investigations are intended to reduce or prevent future fire fighter deaths and are completely separate from the rulemaking, enforcement and inspection activities of any other federal or state agency. Under its program, NIOSH investigators interview persons with knowledge of the incident and review available records to develop a description of the conditions and circumstances leading to the deaths in order to provide a context for the agency's recommendations. The NIOSH summary of these conditions and circumstances in its reports is not intended as a legal statement of facts. This summary, as well as the conclusions and recommendations made by NIOSH, should not be used for the purpose of litigation or the adjudication of any claim. For further information, visit the program website at www.cdc.gov/niosh/fire or call toll free 1-800-CDC-INFO (1-800-232-4636).

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