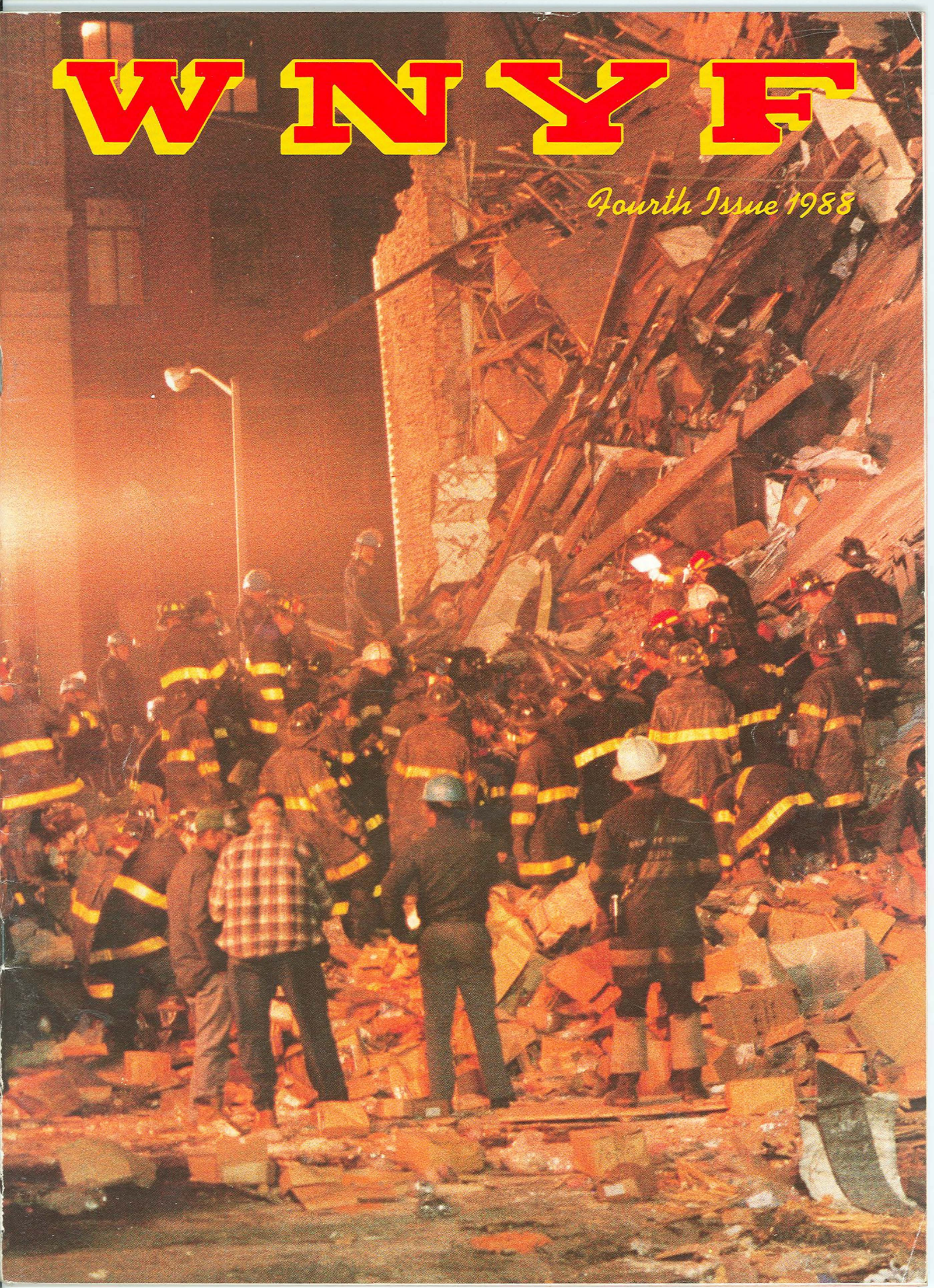


# WNYF

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## 31st Street Collapse

**In freeing victims from the rubble of a six-story building, the FDNY applied the principles of collapse rescue.**

by VINCENT DUNN  
*Deputy Chief, Division 3*

She could feel the vibrations of the firefighters working on top of the collapsed roof section that buried her. She heard the roar of the gasoline-powered saw that was cutting a timber above her. The firefighters' voices were getting closer now.

For almost nine hours, Robin Fischer had been buried beneath tons of bricks, timbers, and steel. Her legs were painfully twisted around a piece of cold, steel machinery. She was packed tightly in the collapse rubble with her arms outstretched, just as she had fallen with the cave-in. Her voice was weak from shouting for help.

Suddenly, because the weight of the rubble had lessened as firefighters dug it away, she was able to

push her right hand up past the bricks. She grasped a boot, but it kicked free of her feeble grip.

Opening and closing her hand to attract the attention of one of the rescuers above her, she suddenly felt a canvas-gloved hand grab her wrist tightly. She heard a firefighter shout, "Hey, Cap, we got the other victim. She's alive!"

The firefighters knew that this final victim was likely to be found where the floors had fallen flat on top of each other, so no one thought she was likely to have survived.

"How do you know she's alive?" the officer wanted to know.

"She's squeezing my hand!"

The scene was the climax of one of the most dangerous collapse rescue operations ever undertaken by the FDNY. Nearly nine hours before, at 1503 hours last October 24, the Division 3 messenger van had transmitted a verbal alarm for box 679. The operation that unfolded in the intervening time would rely on coordination, planning, and information gathering to apply the principles of collapse rescue.

Although the *Dispatchers Action Guide* requires only a full first-alarm assignment for a collapse, the verbal alarm described what was clearly a major collapse. The initial response sent by Dennis O'Connell, a supervising fire alarm dispatcher on duty in Manhattan that day, added a deputy chief and two rescue companies—Rescue Co. 1 and Rescue 3 with its Collapse Unit. [See “The Collapse Unit,” page 5.] On receipt of duplicate reports, SFAD O'Connell dispatched Rescue 4, a rescue support ladder company, another battalion chief, Hazardous Materials Co. 1 (for its thermal imaging camera, a device that detects heat sources and can help in locating trapped victims), the Field Communications Unit, and Ladder 4, which was in the immediate area. Priority notifications were made to the Police Department, Emergency Medical Services, and Con Edison.

### FIRST SIGHT

When the first-alarm fire units arrived at 24 West 31st St., firefighters found what was left of a six-story, Class 3, commercial building measuring 25 by 75 feet. The center two thirds of the masonry wall on the exposure 4 side had tumbled into an adjacent parking lot, in a curtain-fall type of collapse (almost straight downward, the way a curtain would fall if cut loose at the top). The collapse of this bearing wall had caused the roof and the center portion of the third, fourth, fifth, and sixth floors to slide into the parking lot seconds later. The stairway attached to the exposure 2 wall had pulled away and collapsed with the floors.

The exposure 2 wall was intact and free-standing, buttressed by a steel-reinforced-masonry wall enclosing an elevator shaft. The rear section of the building was also standing, but at all floors there were numerous cracks in the parts of the exposure 4 wall that still stood. The front wall was badly cracked and leaning.

The crumbled wall and floor portions covered roughly 40 feet of the parking lot. Bricks and heavy pieces of furniture had rolled out farther. At the front and rear of the structure, parts of the fourth, fifth, and sixth floors hung down in a dangerous, unsupported lean-to configuration, threatening a secondary collapse. Office furniture, metal shelves, and boxes of jewelry from the building's fashion-related businesses teetered on the lean-to, ready to fall.

Two men were sitting on window sills at the front of

the building—one at the third floor and the other at the fourth. Ladder 7 removed them immediately, using its tower ladder. Ladder 21 quickly helped occupants who were climbing down the rear fire escape. Ladder 24, Engines 3 and 16, police officers, and EMS personnel assisted nine persons who had ridden the collapsing building down into the parking lot and were staggering away from the rubble, cut and bleeding.

B.C. Michael Hughes, Battalion 7, and D.C. Angelo DeCaprio, Division 3, arrived within two minutes of each other. They set up the command post on the 31st Street side of the building, established initial boundaries of the collapse zone, ordered apparatus removed from the zone, designated off-duty Lt. Robert Rainey of Ladder 21 as the initial victim control coordinator, and, through the dispatcher, ordered a halt to underground rail traffic which passes near the site.

### BY STAGES

Rescue 1, under the command of Lt. Jay Fischler, reported to the command post and was ordered to begin a five-stage collapse rescue operation. [See “The Five Stages of Collapse Rescue,” page 6.]

To perform the first-stage reconnaissance and the second-stage removal of surface victims (the stages of collapse rescue often overlap), the firefighters would have to survey the pile from all four sides as well as from the top. (If applicable, a collapse rescue operation must also check from below the rubble. The entire operation is known as a six-sided survey.) Lt. Fischler



(Opposite page) From the exposure 4 side, floors could be seen hanging down inside the building. Photo by the *New York Post* (Right) Ladder companies quickly helped occupants leave via windows in the badly cracked front wall. Photo by *Tim Brown*

# The Rescue Liaison Unit

by **RAYMOND DOWNEY**

*Captain, Rescue 2*

*Capt. Downey was detailed to the Rescue Liaison Unit from its inception until this January.*

At the 31st Street collapse in October, the Rescue Liaison Unit (RLU) operated extensively as both coordinator of the Fire Department's operations on and in the collapse pile, and as one of the main contacts between the FDNY and other agencies.

Part of the RLU's assignment is to coordinate the operations of rescue companies and Hazardous Materials Co. 1 when more than one of these units is operating. At the 31st Street collapse, the unit directed Rescue Companies 1, 3, and 4 and Haz Mat 1, as well as those companies that were directly involved in locating and rescuing victims trapped in the rubble.

In addition, during the entire rescue operation, the RLU maintained a continual liaison between the Fire Department and all other agencies at the scene: the Police Department, the Emergency Medical Services, the Buildings Department, the Department of Housing Preservation and Development, utility companies, and outside demolition experts and crane operators.

The rescue liaison officer examined conditions in the collapse building's cellar, joined in conferences at the command post, and helped to plan sectoring of the rubble pile for digging. The RLU aide, equipped with a Handie-Talkie, stayed with a Buildings Department employee on the roof of a building across the street. The civilian used a surveyor's transit to monitor collapse building walls for movement, and the aide conveyed that information to the command post.

The Fire Department received high praise for this exceptional rescue operation. At this as at other incidents since the Rescue Liaison Unit went into operation just before Memorial Day last year, the RLU worked to ensure smooth coordination during interagency efforts.

The unit, quartered in a firehouse on Roosevelt Island and staffed by one captain and one firefighter 24 hours a day, responds to all third alarms, all scuba operations, and all major emergencies. In addition to building collapses, these include train wrecks, crane collapses, and haz mat incidents. [See Department Order #17, February 8, 1989.] In 1988, some of these incidents were:

• June 14, box 33-416 in Brooklyn, the Con Edison fire. The RLU supervised haz mat decontamination procedures.

• July 1, structural stoop collapse at box 465, on 13th Street in Manhattan. The RLU coordinated the attempt to rescue two young girls; sadly, they had been killed in the collapse.

• July 28, a fire at box 1774 in Brooklyn, where civilians were jumping from the fire building. The rescue liaison officer, with the Police Department's liaison officer, was able to resolve and defuse tensions that arose between firefighters and police, to the approval of both departments.

• September 24, a man in the water at box 1501 in the Bronx. This emergency required scuba operations, and the RLU coordinated the successful activities of the Fire Department, Police Department, and Emergency Medical Services.

At the July 28 fire, the situation might not have been resolved if the rescue liaison officer had not recognized his police counterpart, who was in civilian clothes. This is the advantage of having a special unit that works with other agencies to prepare for emergencies.

The RLU coordinates and supervises Fire Department participation in interagency drills. So far, there have been drills simulating an airplane crash in Jamaica Bay, a major boating accident in the East River, and a transit disaster in the subway system in upper Manhattan. The planning for each drill may take half a dozen meetings among agency members, and it is during these that mutual respect develops.

Detailed reports of all interagency meetings (with the PD, Transit Authority, EMS, Department of Environmental Protection, U.S. Coast Guard, and Port Authority, among others) are forwarded to the chief of department via the chief of operations.

Within the Fire Department, the RLU coordinates specialized training for all rescue companies involving scuba, collapses, confined space rescue, trenching, and haz mat decontamination.

The maintenance of all the specialized equipment assigned to Rescue Services (of which the RLU is a part) is another duty of the RLU. The equipment maintenance, a delicate task, must be performed by someone trained and authorized by the factory, and all firefighters assigned to the RLU have been so trained.

split the company into teams and assigned two firefighters to the front of the building, two to the rear. He and the fifth member climbed on top of the pile.

Rescue 3 arrived at the scene roughly 10 minutes after the alarm and was ordered to assist Rescue 1.

Capt. Raymond Downey, the Fire Department's rescue liaison officer on duty [see "The Rescue Liaison Unit," opposite page.], responded on the report of a confirmed collapse. He reported to Chief DeCaprio, who ordered him to supervise the rescue companies' operations.

Moving to the third stage of the collapse rescue operation, the teams searched all crevices and small spaces created by sections of the wood floors and roof and by large pieces of furniture. Some of the openings they entered; into others, they shined a handlight; and into others, which were blocked from view by a layer of debris, they could only call, then listen for the response of trapped persons.

Fr. John O'Connell of Rescue 3 notified his officer, Lt. Peter Lund, that he had heard a call for help from inside an unsupported lean-to void created by the collapsed sections of the third and fourth floors, and was going to crawl inside the space to remove the person. Fr. O'Connell reached the victim, who was conscious and talking, about 20 feet into the void. Removing the man would require selected debris removal. The firefighter spent about half an hour moving cartons and crates to free the victim, who was placed on a backboard and brought out on a stretcher.

A second victim was found in another void and removed by a police officer.

When Rescue 4 arrived, it was directed to help the other rescue companies search the remaining voids and to breach a wall to search the rear of the first floor.

Haz Mat 1 used a combustible gas indicator to check for gas leaks and other detectors to check for toxic chemicals. Usually, when a building collapses, two-inch gas supply mains are broken. Leaking gas can ignite, causing explosions and fire. As it turned out, what gas supply there was to the building had been shut off and capped before the collapse.

Haz Mat 1 also set up a high-powered microphone to detect cries for help, and a video camera which could be sent into a void or a tunnel dug by rescuers. The camera would have enabled the chief in charge to watch confined-space rescues from the command post; however, the need to use it didn't arise.

Within the first hour, Manhattan Deputy Borough Commander Robert Manson and Chief of Department Homer Bishop arrived at the scene. Among the other officials who were present during the operation were Fire Commissioner Joseph Bruno; Assistant Chief Dudley Glasse, the citywide command chief; and Mayor Edward Koch.

D.C. Vincent Dunn relieved Chief DeCaprio at 1600 hours. By this time, the rescuers on the scene had completed the first three stages of the operation,

which are both the most dangerous and the most productive in terms of victims located. Eleven of the 15 persons who were believed to have been in the center portion of the building when it collapsed had been removed to hospitals—the nine from the surface of the pile and the two removed from voids. The number of people missing had been determined from a variety of sources. The victim control coordinator and the Battalion 6 aide talked to people at the scene; fire marshals (responding at the 10-75 signal) and police detectives interviewed victims at the hospital.

Somewhat later, two workman counted among the missing were accounted for; they were away from the rubble and unharmed. Now only two persons were still reported missing and presumed to be in the collapse rubble: building owner Frank DeSantis, a man in his 60s, and Robin Fischer, a 29-year-old jewelry designer.

After the two void victims had been removed, there had been no more voice contact with victims. A Buildings Department employee had set up a measuring instrument known as a surveyor's transit on the roof of a three-story building across the street from the collapse, and a firefighter equipped with a Handie-Talkie was stationed with him throughout the operation. As time passed, the front wall of the collapse building moved  $\frac{1}{4}$  inch—indicating a danger of secondary collapse. The rescue operation was temporarily halted and all personnel were ordered away from the pile of rubble.

## The Collapse Unit

Rescue Co. 3's Collapse Unit provides additional tools and material for operations at major collapse rescue operations. The items are transported in a 1971 Mack rescue company apparatus to which two Rescue 3 firefighters are detailed when the unit is needed. If a special call for the Collapse Unit comes in when Rescue 3 is operating elsewhere, firefighters from Ladder 45 or Engine 93 will deliver the vehicle. Among the items it carries are the following:

- Lumber for shoring
- Approximately two dozen trench jacks
- Air shores (air-operated trench jacks)
- Trash pumps for dewatering operations
- Air-powered nail guns for building shoring
- A Lukas hydraulic rammer and spreader
- Four chain saws (gas- and electric-powered)
- A pavement breaker
- A 5,000-watt generator
- Quartz floodlights
- Carpenters' aprons



(Above) Fire Department efforts pulled one survivor out of an unsupported lean-to void. Photo by Robert Wheeler (Below) The hand of Robin Fischer finds a reassuring grasp as firefighters work to free the astonishing survivor from a pancake configuration nine hours after the collapse. Photo by Blain Brown



victims, that would be in a pancake-style portion of the collapse.

When the crane completed its work at roughly 1800 hours, rescue workers took their places to begin the fourth stage, selected debris removal. The pile was divided up equally between police ESU personnel and the Fire Department.

Rescue Companies 1 and 4 dug two open trenches where they hoped to find Fischer and DeSantis. Ladder company firefighters formed a chain to pass the rubble hand to hand, to the area where payloaders were waiting to scoop it up and load it onto dump trucks. The process went on for more than five hours as the firefighters dug through several feet of rubble. DeSantis's body was discovered at 2300 hours. Fifteen minutes later and 20 feet away, Fr. Joseph Hodges of Ladder 6 grabbed the moving object that happened to be Robin Fischer's hand.

Although Fischer was found in a pancake-style collapse configuration, she had survived in an individual void created by the pieces of machinery that trapped her. They kept the roof from meeting the sixth floor to crush her. Boxes filled with plastic packaging material had cushioned the impact, as had the giving-way of car roofs as the building fell onto the parking lot, exposure 4.

With another half hour of effort, Robin Fischer was dug out alive.

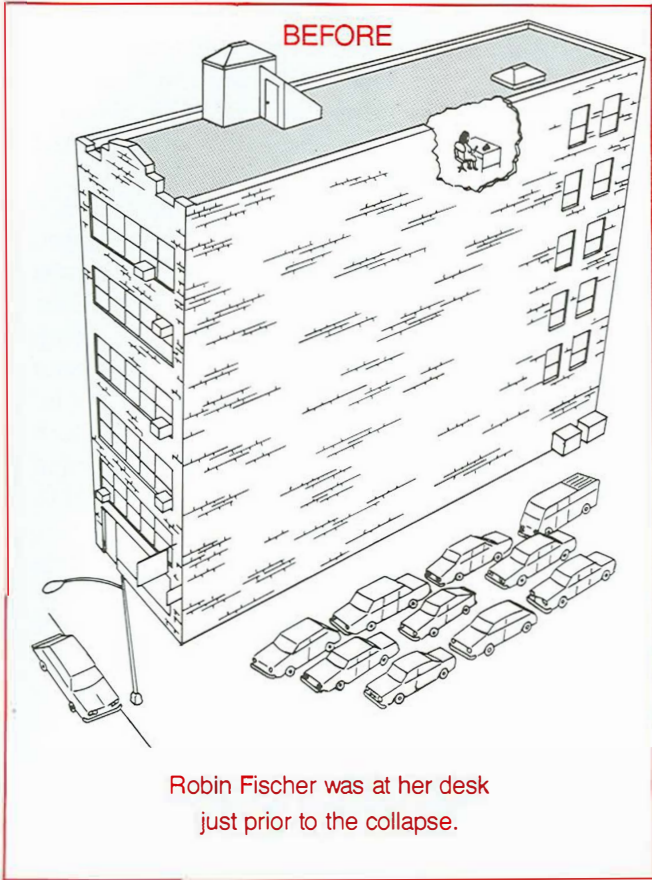
Now that all known victims were removed, the collapse rescue operation moved into the fifth and final stage—general debris removal—to look for possible unexpected victims. The Fire Department maintained a presence consisting of a battalion and an engine company until all the rubble was cleared from the parking lot and collapse building—more than 24 hours after Robin Fischer was removed. There were no unexpected victims.

#### LESSONS LEARNED OR REINFORCED

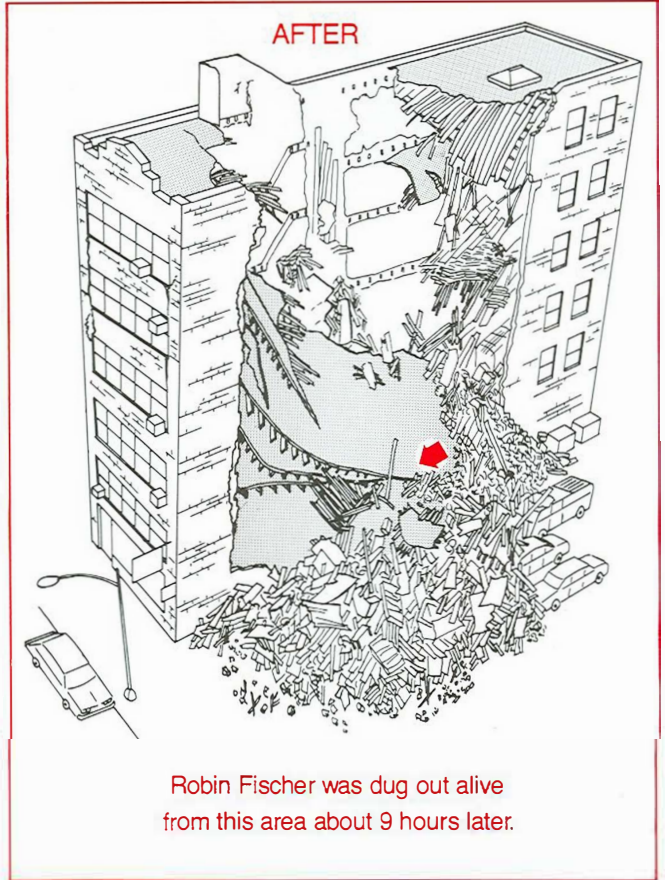
1. At a major collapse, three rescue companies and Haz Mat 1, as well as Rescue 3's Collapse Unit, should respond. One of the rescue companies will dig into the rubble to rescue victims. The second will work underneath and on top of the pile to survey stability and provide shoring. And the third will act as a support unit, delivering tools and equipment; this function leaves this company in reserve to rescue rescuers, if any become trapped in the rubble.

2. A key to successful fire and police cooperation is the rescue liaison officer. Because Rescue Liaison Unit officers attend meetings and training sessions with police supervisors, there is mutual respect and an open channel of communication at this level. Chief officers must take advantage of this at any emergency where the two agencies operate.

3. Flash fire and explosion are two of the major dangers at the collapse of a multistory building. The potential exists because gas mains might be ruptured. A hose line must be stretched immediately.



Robin Fischer was at her desk just prior to the collapse.



Robin Fischer was dug out alive from this area about 9 hours later.

4. Secondary collapse is the third major danger at a multistory collapse. The structural integrity of building portions left standing must be monitored. One tool for accomplishing this is a surveyor's transit.

5. When a partially collapsed wall threatens secondary collapse, a skillfully operated crane might be able to remove it without causing further injury to trapped victims.

6. Sophisticated equipment such as the thermal imaging camera, high-powered microphones, and video cameras must be available to a collapse operation to aid in the search for victims.

7. Tunneling and trenching into collapse rubble aren't hit-or-miss operations, and determining the location of victims trapped in a collapse is not a guessing game. Rather, the decisions are based on information that can often be obtained from survivors and other eyewitnesses:

- The floor on which the missing person was last seen;
- The person's location on that floor;
- The contents and furnishings that were near the victim (encountering these objects in the rubble will alert rescuers that the victim is nearby).

One other type of information is up to the rescuer to analyze: The configurations in which the floors have collapsed (pancake, lean-to, V-shape, or tent) are clues to where the building's contents—including victims—have fallen.

[For more information on these basic principles, see

"Collapse!," by Joseph E. Contrastano, *WNYF*, July 1960, and "More about Collapse," by the same author, *WNYF*, Winter 1961. Also see Chief Dunn's book, *Collapse of Burning Buildings*, Fire Engineering, (New York: 1988).]

8. When an incident produces multiple victims, a victim control coordinator is needed to keep track of those missing and those transported to hospitals.

9. To help gather information to determine victim location, chiefs should take advantage of the investigative skills of fire marshals.

10. We do not allow large master streams to be used at fires when handlines are advancing from the interior. By the same principle, heavy mechanical equipment should not be used at a collapse rescue operation at the same time rescuers are digging and removing rubble by hand. When someone is using heavy equipment, all other rescue workers must be removed from the collapse rescue pile.

11. When a victim trapped in a building collapse is reached, the victim should not be moved until an emergency medical technician, paramedic, or doctor has examined and stabilized the person. The exception is when there's an immediate danger, such as that posed by fire or explosion.

12. Never give up hope of finding victims alive. All the way through the fifth and final stage of a collapse rescue operation, firefighters should work with the care and prudent haste necessary to bring out collapse survivors.

Two members entering a room together should split up and go in opposite directions, while keeping the communication going. Somewhere in the middle you'll meet, pass each other, and continue on. When you both get back to the door you came in, the room has been searched twice by two different people in a short time. This avoids the "blind mice syndrome" of one firefighter following behind another, possibly missing the same things.

### GETTING IN AND MOVING AROUND

With at least a preliminary plan chosen in the moments of the initial size-up, you can move inside.

The physical process of searching begins with gaining access. Before opening a door to enter the area to be searched, check the door with the back of an ungloved hand. If the knob is hot, expect to find fire inside. Stay low and to one side of the door when opening it.

Check around and behind the door right away, because people caught in a fire often try to reach an exit, and may be found unconscious near one.

If flame or heat blocks your entry, you can check for victims by probing the immediate area with your hand or a tool. (Be cautious when using a tool, to avoid injuring a victim.) Further advance under these circumstances will have to be made with the protection of a charged line. As the engine company moves the line in, searchers can leave the line to check other rooms, then return to the line to move farther into the occupancy.

When entering without a line, you can chock the door open *if* doing so won't encourage fire extension or hinder the removal of occupants from above; otherwise, close the door. But don't let it lock behind you. Set the lock, or put a rubber band, latch strap, or Sure Search door marker around both knobs.

Access through a window requires the same concern for victim and firefighter safety as access through a door. Break glass by tapping it lightly, to avoid cutting anyone who may be unconscious on the other side. Then probe gently and check the area for stability before entering. Again, stay low and let the fire vent over you.

Sometimes, entry isn't possible through either a window or a door. In that case, some other access may be possible—such as breaching a wall from an adjoining apartment or entering through a cellar.

Before entering a fire area in a building with multiple occupancies, consider forcing a door to another, unexposed occupancy so it can serve as an alternative escape route. If the way you came in is suddenly blocked, at least you're working toward another way out.

If you're the first-due ladder company, which is responsible for locating the fire, you might have to gain access before you'll know whether the area you're entering is the fire area. Once the fire is located, the ladder company should report this information to the

engine company, then continue searching from that point. The second-due truck, being above the fire, can begin its search as soon as it's inside the involved area. Both units should plan their search in a way that will allow them to reach a secondary exit if necessary.

As you enter a room, stop and listen. Use your senses to help you. You may hear crying, coughing, moaning, the crackling of fire. You may feel heat coming from one direction.

You might want to leave an extinguisher in the doorway to a particular room to serve as a marker for your way out. If you need it, it will be within a few feet of you.

Use the walls as a guide and probe toward the center of the room. Throughout the search, use the same hand to keep contact with the wall. If you switch hands, especially in a small area such as inside a closet or around a chair, you might reverse yourself. You could wind up going back the way you came in, never finishing the room.

Go into small, narrow areas with one hand on the wall, and spread yourself out as far as possible. In this way, you'll be able to reach the whole space in one sweep.

As you proceed inside the occupancy, don't pass up any doors. Again, check in the vicinity of and behind each door for occupants who may have been trying to exit. Also be aware that a locked door inside an apartment usually leads to a bathroom or a bedroom. The fact that it's locked is a good indication that there's someone inside.

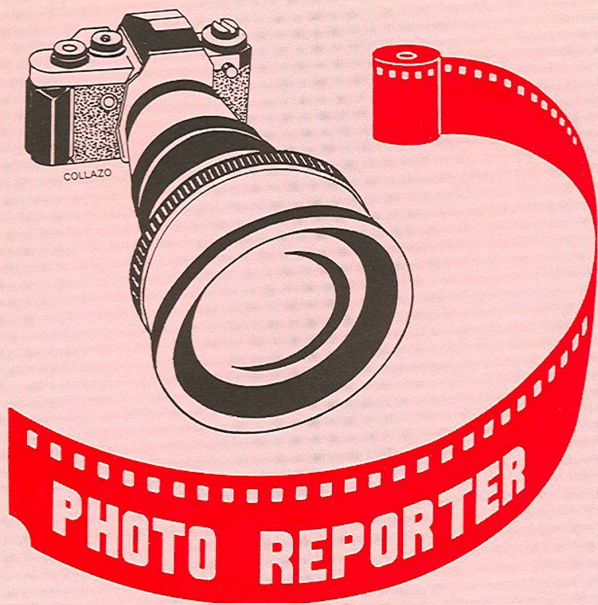
To increase visibility and improve conditions for victims who might be in the area, you should ventilate as you search—as long as venting won't cause fire extension. However, if you know there's a victim nearby, you may have to vent even if it *will* cause fire extension. In this case, you must communicate the information to your company officer or the chief in command.

The object of venting for life is not only to extend the time a victim can survive, but also to increase the area in which firefighters can operate. Hooks can be especially useful for venting. Your six-foot hook and three-foot arm will give you almost nine feet of reach to break a window in an area which is unbearably hot. After venting, you may be able to "make" a room you couldn't enter before.

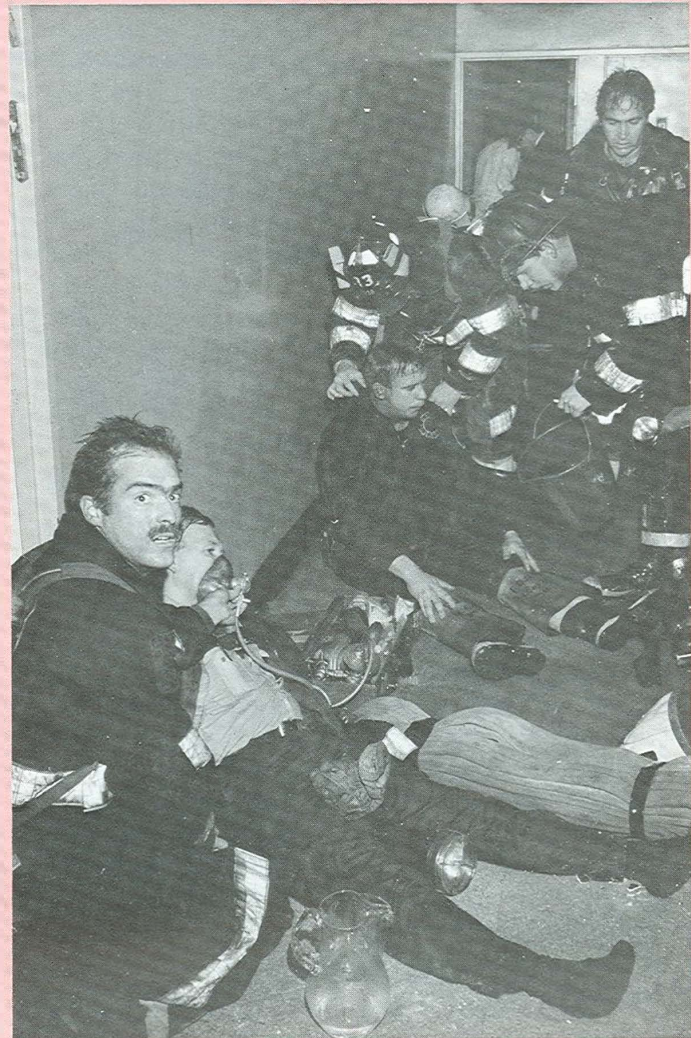
### KNOWING WHERE TO LOOK

You should paint a mental picture of what you're feeling as you go. For example, a low mattress may be a tip-off that you're encountering a bunk bed, and you'll have to check for the upper bunk as well. Conversely, in some parts of the city, to save space in virtually any kind of building (including old-law tenements) it has become popular to set up loft beds. These are mounted high, over other furniture. (In this situation, you may find crowded conditions and many occupants.)





Concern shows on the faces of 1st Division members as they administer first aid to two of their comrades injured while operating at a second alarm at Box 239. Twenty firefighters were injured at the December 3 fire in a 20-story, fireproof multiple dwelling at 268 Broadway. Photo by Robert Wheeler



Three members of Ladder 77 were treated for exposure after jumping into the icy waters of Staten Island to search for occupants of this 1988 Mercedes-Benz. FDNY units responded to Box 424 on a report of a car in the water, possibly with persons trapped, on December 10. Rescue 5 used its A-frame boom to raise the vehicle—a stolen car that had been dumped. Photo by John Skelson



Fr. Joseph Hodges's part in the October 24 rescue of Robin Fischer from a collapsed building on West 31st Street (see page 2) brought him City Council recognition. Hodges received a proclamation November 7 in council chambers.

Attending the presentation were (from left to right) Fire Commissioner Joseph F. Bruno; Council President Andrew Stein; Hodges's wife, Eileen, and 7-year-old daughter, Erin; Fr. Hodges; Rev. Wendell Foster, a council member from the Bronx; Minority Leader Susan Molinari; Majority Leader Peter Vallone; and Finance Committee Chairman Michael DeMarco. Photo by Tom McNulty





Members of Tower Ladder 111 await water to put on this fire in a vacant building at 736 Willoughby Ave., Brooklyn. Ladder 108, "The Pride of Williamsburg," was another of the seven truck companies that operated at Box 781 early on November 14. An efficient exterior attack brought the third-alarm blaze under control in one hour. Photo by Robert Wheeler

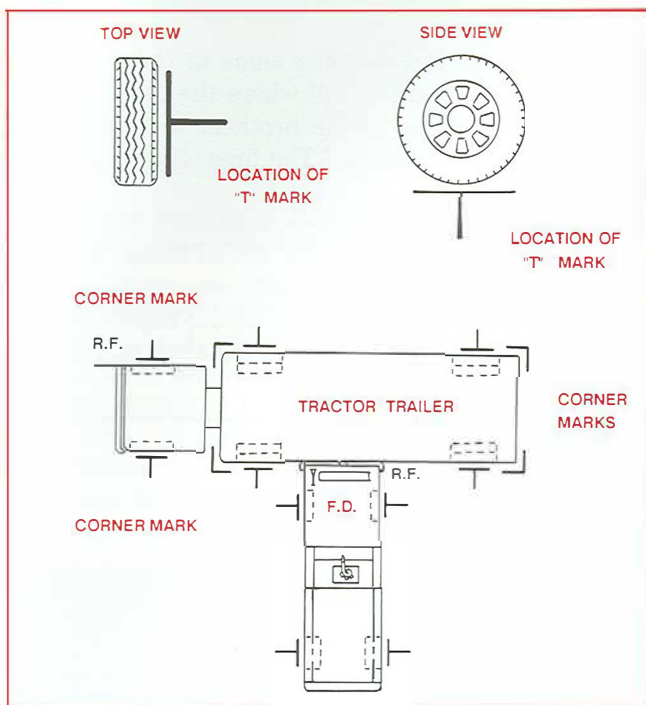
When an overturned fuel truck blocked morning rush-hour traffic at the Brooklyn-Queens Expressway and Morgan Avenue November 30, firefighters worked to clear the obstruction. Before the tanker could be righted, the contents had to be offloaded, but the valves normally used were inaccessible. Fr. Kevin Culley of Hazardous Materials Co. 1, Fr. Neil Yank of Ladder 138 (detailed to Haz Mat), and Lt. James Oliveri (covering in Battalion 57) use an air-operated drill with a carbide hole saw blade to cut into the closed container. Photo by Richard Smiouskas



Carmine Vaccariello, the first fire marshal to become New York Daily News Hero of the Month, was presented the award one month after his November 22, off-duty rescue of two persons from a burning car. From left to right are Chief of Department Homer Bishop, Fire Commissioner Joseph F. Bruno, Chief Fire Marshal John Regan, Deputy Fire Commissioner Jonathan Fairbanks, F.M. Vaccariello, Uniformed Firefighters Association President Nicholas Mancuso, and James Willse, managing editor of the Daily News. Photo by Frank Incantalupa

Members of the Division of Training's Ceremonial Unit, along with a New York City Police Department representative, formed an honor guard November 27 when FDNY and NYPD hockey teams took on the Boston fire and police departments at Nassau County Coliseum. Left to right are Fr. Howie McQueen, Fr. Frank Galiani, B.C. Richard Saccomanno, Sgt. Pete Abbott, Lt. Joe DiBartolo, Fr. Al Seltzer, and Fr. Pat Ross. New York firefighters bested the Boston cops 5-2, while the Big Apple's police officers skated to a 6-3 win over the BFD. Proceeds went to the Ed Byrne Memorial Substance Abuse Fund.





Mark vehicle positions with T-shaped marks at the wheels. On trailers, mark the four corners, too. Additional marks, such as R.F. at the right front of the vehicle, will be helpful.

involved vehicles is unable to proceed; in which more than two vehicles are involved; or from which extensive property damage has resulted.)

For the unit involved in an accident, the Apparatus Accident Procedure sticker on the vehicle's dashboard and the Apparatus Accident Packet, containing various forms, will provide guidance. (Each vehicle should have an Apparatus Accident Packet. If it's missing, contact the Safety Division for a replacement.) The unit should also notify the dispatcher immediately of the unit involved, the location of the accident, any injuries to members or civilians, whether the accident is major or minor (if that's been determined), whether the unit was responding to or returning from an alarm, and whether the unit is remaining at the scene or proceeding to an alarm.

The *battalion chief* responding to the accident scene should approach from the same direction as the unit involved, if possible. The battalion chief should observe the overall view of the accident approach area, including obstructions to the drivers' view and the location and type of traffic controls.

All units arriving at the accident scene should select a safe parking location to prevent the accident from escalating. If necessary, the vehicles should be positioned to block traffic. Headlights should be used to illuminate the accident area and emergency lights used to warn traffic.

Members should avoid driving, parking, walking, or standing on the accident vehicles' skid or scuff marks. None of the vehicles involved should be moved unless absolutely necessary, especially if a fatality or life-threatening injury has occurred.

The investigating chief must make sure the following steps are completed, and may assign various members to assist:

1. *Determine the extent of injuries* and the need to call the Emergency Medical Services, a rescue company, or Hazardous Materials Co. 1. (If a fatality or life-threatening injury has occurred, a police officer at the scene will determine if the Police Department's Accident Investigation Squad is required.) Assist anyone in need of medical attention. Get the names of hospitals to which the injured are removed.

2. *Secure the accident scene.* Request Police Department assistance and direct traffic until police officers arrive. Call additional Fire Department units if necessary; to avoid confusion, return all units that are *not* required. Use traffic cones, flares, and traffic warning signs properly, being alert to the approaching traffic flow.

3. *Prevent the disturbance of physical evidence and mark positions on the roadway.* Preserve or mark the location of dislodged trim or small vehicle parts (such as mirrors and reflectors), broken window glass, dirt that the impact has dislodged from the wheel wells, and any other physical evidence. For each vehicle involved, use the lumber crayon from the Apparatus Accident Procedure packet to mark the location of a minimum of two wheels on the same side of the vehicles (three, if a trailer is involved). (See illustration). Use additional markings to show the vehicles' orientation; for example, you can label the right front (officer or passenger side) of each vehicle with the initials *R.F.*

4. *Obtain witnesses.* For follow-up reference, record the names, addresses, and telephone numbers of witnesses. These may include not only eyewitnesses, but drivers of other vehicles in the vicinity, pedestrians, and nearby shopkeepers and residents who heard audible signals of approaching apparatus.

When the Forensic Unit arrives, the FDNY photographer should take the following shots of the scene: an overall view of the accident location, taken from the rear of both vehicles toward the point of impact; a photo of traffic controls, including "Yield" and "Stop" signs; any obstructed view which might have contributed to the accident; a photo of damage to the vehicles, showing their license plates; and a shot of skid marks, taken from the start of the skid to the point of impact.

The battalion chief reports the information he gathers on a CD-19A and may make recommendations for corrective as well as disciplinary action. The form goes to the deputy chief and borough commander for their endorsement.

The Safety Operating Battalion, when it responds, conducts an investigation separate from that of the field chief officers. A safety battalion chief, certified in accident investigation by the New York State Division of Criminal Justice Services, is qualified to analyze and interpret all evidence related to the accident and to determine the probable cause.