

THE RESCUE COMPANY

RESCUE OPERATION PLAN

It usually starts about a week before the game. Coaches will be sent to attend the game of their upcoming opponent for the purposes of "scouting" them. They note every play, offense and defense. Special attention is given to the star players. Strengths and weaknesses of each player are important to the scouts. After all the plays and players are discussed amongst the entire coaching staff, the game film is reviewed and a game plan is formulated. The coaches now develop both offensive and defensive plans to stop their opponents. Contingency plans are added so adjustments can be made during the game. Many coaches will be seen on the sideline looking at their game plan (most of them put them in hard plastic; previous experience has shown that during some excitable moments, coaches have rolled them into a ball or even used them as guided missiles).

In the article on rescue site management, we saw how the incident commander used a game plan and made the necessary adjustments as the "game" progressed. A rescue operation plan (ROP) must be flexible so that the operations officer can make adjust-

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ments and implement the necessary tactics to control any rescue operation. The plan can be used for collapses, explosions, fires, train accidents or derailments, plane crashes, ship disasters—just about any type emergency or fire that will require a supervised, controlled, coordinated rescue effort.

A rescue operations officer (ROO) must have complete control over the rescue operation. If, upon the arrival of the operations officer, an incident commander is not on the scene, the ROO must assume overall control so that the rescue operation plan can be implemented by an officer whose knowledge and expertise will not exacerbate the situation. His responsibility to direct, supervise, and control the rescue operation, however, does not relieve him from coordinating and communicating with the incident commander, once he has arrived at the scene. Furthermore, the ROO is responsible for maintaining communications not only with the incident commander, but most importantly, with his rescue teams.

During any rescue operation, a ROO's checklist of duties and responsibilities could probably fill one of Santa's mail bags. But it is the ROO's experience that will be the "crutch" needed in handling the unique problems and difficulties as they present themselves. Rescue operations generally don't allow a ROO the luxury of using a standard form or guide to lead him through an operation, as is apt to be the case in our fire prevention and inspection activities. Being able to

make adjustments is the key element of an ROP. Let's look at a recent major collapse and see how the rescue operations officer carried out his plan and made necessary adjustments where required.

It was a bright, sunny autumn day when the report of a building collapse was received in the dispatchers office. One immediately wonders what would cause an apparently sturdy building to collapse when weather is not a factor. Investigators are finding more and more that illegal and/or unauthorized renovations have been the cause of many recent collapses, as was the case on this particular day.

The seriousness of the situation was realized immediately, since the original report was received from a fire department unit near the scene at the time of collapse. Fire alarm dispatchers listened as a highly excited member stated that he was unable to determine how serious the situation was because there was so much dust and plaster flying in the air that he was unable to see the building—or the remains of it—at that time. This was the start of a major rescue operation that would have a sad ending for one family but a very happy ending for many others.

The first units arrived at the scene within minutes and were met by numerous people, some covered with dust and plaster, some bleeding, some hysterical, some dazed and wandering around, and others screaming for their co-workers who they thought were still in the pile

of rubble that once was a six-story, brick-and-joist building.

The most apparent problem, one that would take a great amount of effort and coordination, was to determine how many victims could possibly be in the collapsed building.

Arriving shortly after the first units, the incident commander (a deputy chief) established a command post, initiating an operation that was to last more than 8½ hours before the last survivor was brought out. As additional chiefs and companies arrived, assignments were given to cover the

rescue operation, victim control and coordination, safety, communications, water supply, and interagency liaison (police, utilities, buildings, etc.), and so the incident command system was established.

SIX-SIDED APPROACH

The ROO set the game plan into operation. The most accessible locations were addressed first. As additional rescue companies arrived, they were assigned to priority areas of the collapse. The three rescue companies were strategically positioned to pro-

vide a "six-sided" approach from above, below, and each of the four sides.

It must be remembered during these types of large-scale operations that the ROO will be responsible for directing and controlling the operations of the rescue personnel, and that all communications, requests, directions, and information must be channeled through him. At large-scale operations, there may be anywhere from 20 to 50 portable radios in operation, and rescue teams should use a secondary channel to avoid interference



The rescue operation plan must be flexible to cover every eventuality and expand to the scope of operations. This is the scene that confronted firefighters in midtown Manhattan on a workday afternoon. The voids formed by the original collapse (above) are evident and must be accessed as soon as possible. Exposure problems may place a severe impact on life safety. The stability of the remaining structure is in serious doubt. Command, control, and coordination are mandatory even for experienced rescue personnel. Photos by Jim Iorizzo.



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from other communications in effect. The ROO should have by his side another member with a portable radio who will stay on the primary channel and maintain communications with the command post.

This building was unsupported by other buildings and had collapsed into a parking lot on the exposure 4 side, covering a number of automobiles. The remainder of the structure left standing was highly unstable. The initial rescue operation was centered on the top of the pile of rubble where the upper floors had landed in a lean-to position, creating a few voids. Rescue personnel entered these voids and, using the "call-and-listen" approach ("call": calling out and asking "if anyone is in there" or "can you hear us?"; "listen": after calling, listening for a response), made contact with two trapped building occupants. The voices of these trapped workers gave the rescuers a point of direction to guide their rescue efforts. The ROO directed other members of the rescue teams to look for similar voids from the six sides. Their efforts proved negative.

The ROO notified the command post of the rescue effort in process and requested medical personnel to be ready to treat the trapped civilians. Tools and equipment were readied for possible use. A staging area was designated, separate from the command post staging areas, that was to be used for rescue equipment and personnel by the ROO.

Due to the instability of the remaining structure and the position of the debris, orders were given that power tools were not to be used; any vibrations or unnecessary movements could have caused further collapse. Hand-by-hand digging and careful removal of all debris and obstacles was in order. Minimum manpower was committed to the collapse area so as not to create an overload.

Extreme care was taken during debris removal while trying to reach

trapped victims. Moving the wrong beam or supporting member could have caused an avalanche of debris, possibly adding to the rescue effort. This was one of the most critical aspects of the rescue operation and reinforces the importance of using only experienced personnel in these situations. Another consideration in this particular incident was the vibration that could occur from underground subway and rail traffic in the area. A request was made to the agencies involved to shut down all service.

As rescuers were making their way to the trapped workers, the ROO



The rescue operations officer should coordinate and command six sides of the rescue operation. He is also the liaison between the incident commander and the rescue teams.

placed additional rescue personnel on standby status, just out of the collapse zone (the area that could be covered by the falling debris in the event that the remaining structure collapsed). Too often the safety of the rescuers is taken for granted.

What if? Another part of the checklist. "What ifs" could fill a page. But what if the rescuer in this incident *did* get trapped? (It happened recently in a large city, but fortunately it had a happy ending). The ROO had to take that possibility into account. It's not

unusual for the "computer" (the one we speak about often—the one under the helmet) to go into the overload stage during these types of operations. The most experienced rescue officer will tell you that after a "self-critique" he usually can think of a number of items that might not have been on his "printout" that particular day.

After rescue personnel reached the trapped victims, stretchers were called for, the victims were secured into them, and a chain of rescuers safely removed them from the collapsed building. Rescue of these two victims was accomplished in less than an hour from the time of collapse.

While the rescue efforts were taking place, the ROO requested from the incident commander any further information regarding the possibility of additional victims trapped under the huge pile of rubble.

REASSESSMENT

It was while this information was being sought that a combination of factors dictated the removal of all rescue personnel from atop the pile while an assessment of conditions was undertaken:

- The continuous "call-and-listen" procedure was now getting negative results. It should be noted that the victim who was trapped for 8½ hours stated in an interview a few days later that she could hear the voices of rescuers and kept calling out for help. Her calls were muffled by the debris (as high as eight feet in some places) and therefore went unanswered.
- The remaining structure was highly unstable. The heroic initial rescue of the first two trapped building occupants had taken place under extremely dangerous conditions. A survey by the building commissioner reinforced the decision to remove rescue personnel from the pile. Structural instability was the primary reason for this decision.

These factors required the reevaluation and reassessment of the rescue operation plan. Rescue personnel

were directed to the operations staging area, while a conference among all agencies involved was held at the incident command post to determine alternative actions to be incorporated into the game plan.

The number one priority would be to try and ascertain the number of occupants—and if, indeed, there *were* any—still unaccounted for. All survivors, either still at the scene or at hospitals, were interviewed. This required a coordinated, teamwork approach from all agencies involved. The information gathered indicated that there had been 11 people in the building at the time of collapse. Two had to be removed via a tower ladder from the front section, a few had reached safety via the rear, and the remainder had ridden the collapse down into the parking lot like a giant slide. A victim control coordinator ordered personnel to visit the survivors at the hospital, and this proved extremely helpful in finalizing an accurate count of missing victims. These interviews, plus those of eye witnesses, occupants of neighboring buildings, and others familiar with the daily activities of the occupants, helped in the final determination that two victims were still unaccounted for.

However, one uncertainty that remained throughout the operation was another "what if"—what if someone was visiting, delivering a package, or just happened to be passing by when the collapse occurred? This uncertainty was dealt with as the operation proceeded; fortunately, no "what if" victims were found. This is the kind of item that the "computer" doesn't always have the answer to.

When interviewing the survivors, certain information can be crucial in locating the missing victims. Where were they last seen? Where do they work—on what floor, and at the front, middle, or rear of the building? What's the normal layout of the floor? Did they exhibit any particular work habits? Do they work at the same location all the time, or do they travel to different areas of the building? Trying to place them just prior to the collapse and then "reading" the collapse

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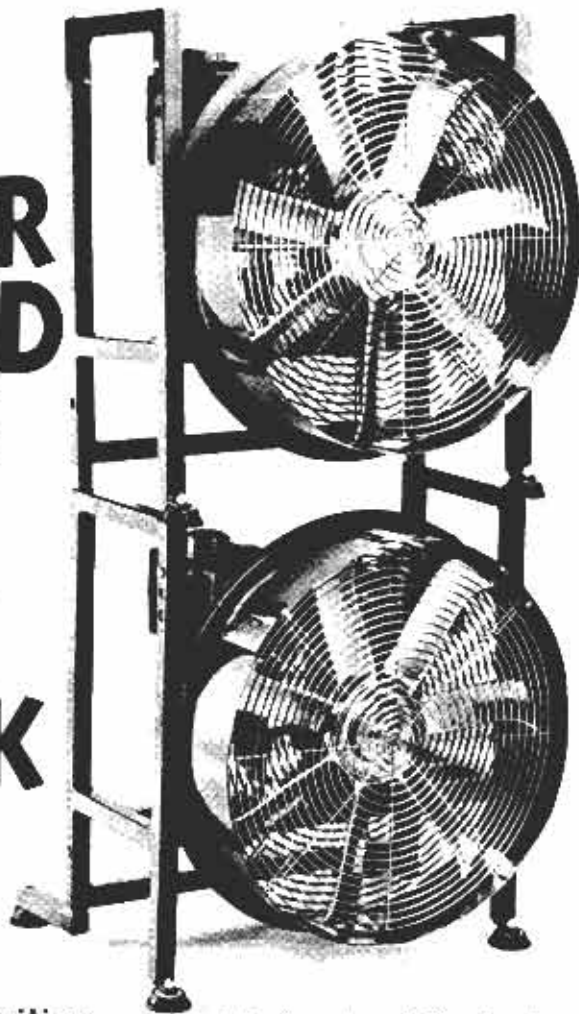
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were reviewed and the consensus from rescue personnel was that although the rescue effort was a success, there was a wealth of lessons learned that could enhance future rescue operations. Adjusting the "game plan" and updating the "computer" (yes, the same one) has to be part of the ROO strategies.

Let's review some of the duties of the rescue operations officer that require his immediate attention while trying to implement all the operational procedures necessary to bring such a complex rescue operation to a successful conclusion:

- ✓ Direct the rescue operation.
- ✓ Designate team leaders.
- ✓ Supervise, control, and direct the rescue team and team leaders.
- ✓ Divide the collapse area into manageable sectors.
- ✓ Assess and evaluate the game plan as it plays out.
- ✓ Have a contingency plan on standby.
- ✓ Gather information, collate it, and feed the "computer."
- ✓ Maintain communications—"laterally" to rescue teams/team leaders and "up" to incident commander.
- ✓ Designate staging area—equipment, tools, and manpower.
- ✓ When time allows, run through the checklist—utilities, medical personnel, additional equipment and manpower, lighting, etc.
- ✓ Keep Incident Commander updated as to progress.

Just like a winning coach, the ROO must implement his "game plan," use his "computer," utilize the strategies and tactics he has incorporated in the ROP, and make the necessary adjustments. If he does so, he will have added another win to the team record. ■