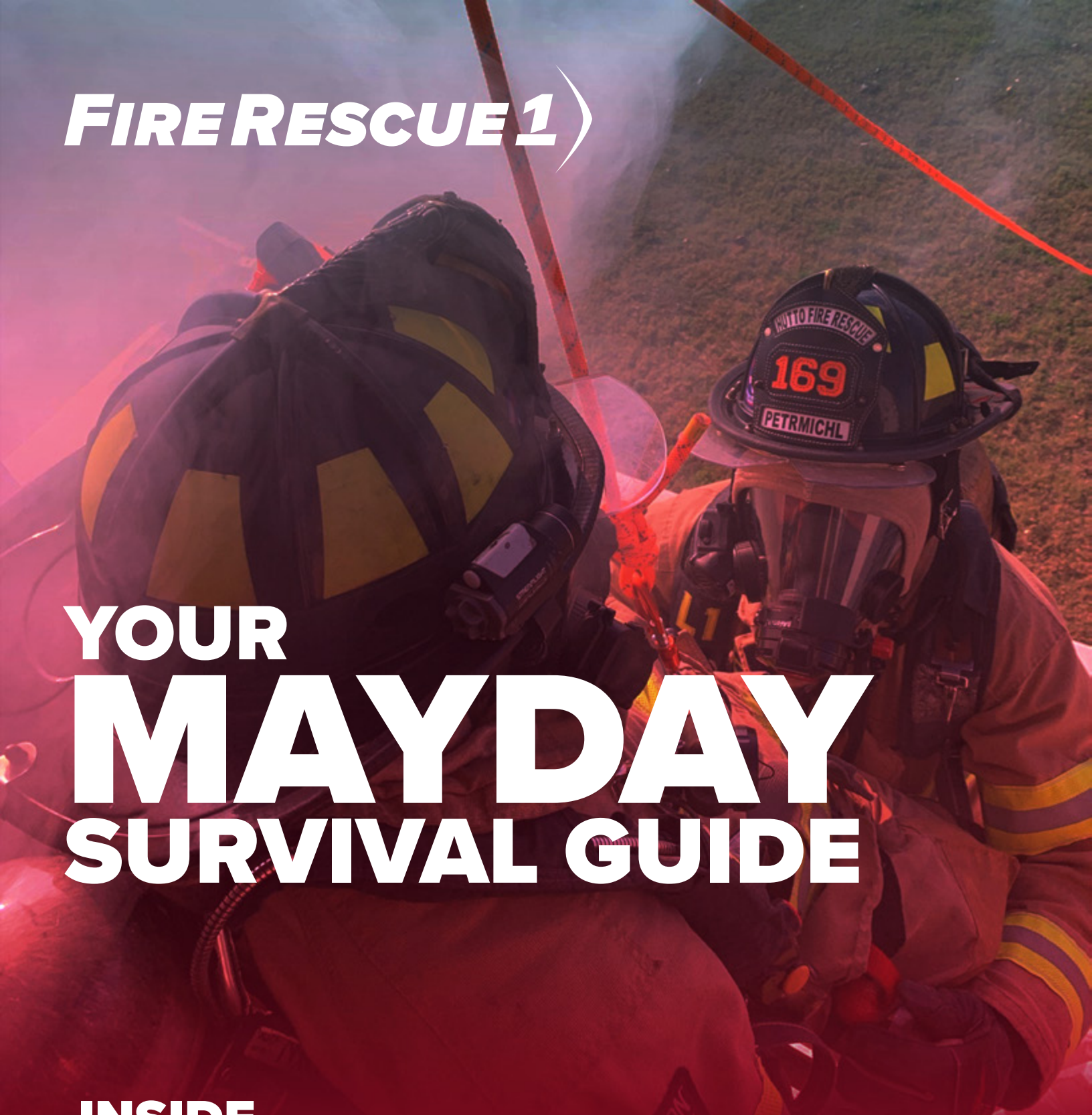
FIRE RESCUE 1



YOUR MAYDAY SURVIVAL GUIDE

INSIDE

- Lessons from a personal mayday experience
- Simplicity and speed in RIT training
- How to command a mayday event
- The portable radio as a mayday lifeline

FROM THE EDITOR

A mayday is the critical moment where the incident can go one of two ways – rescue or tragedy.

Key to avoiding tragic outcomes is mayday training, particularly for newer members with less muscle memory aligned with real-world fireground emergencies. But even seasoned firefighters can find themselves paralyzed with panic, unsure how to proceed.

This special edition shares one battalion chief's personal mayday experience, plus how the department handled the incident aftermath and lessons learned; offers a back-to-basics guide to rapid-intervention training; and addresses the command component of mayday training. Additionally, learn more about mayday training and policies at our mayday survival guide resource page: firerescue1.com/mayday-survival-guide.

I encourage you to read and share these resources with your members. It could be the tool that helps you or a fellow member navigate your way to safety following a mayday transmission.

Janelle Foskett
Editor-in-Chief, FireRescue1.com

EDITOR-IN-CHIEF
Janelle Foskett
jfoskett@lexipol.com

EXECUTIVE EDITOR
Marc Bashoor
mbashoor@lexipol.com

SR. ASSOCIATE EDITOR
Rachel Engel
rengel@lexipol.com

EDITORIAL DIRECTOR
Greg Friese
gfriese@lexipol.com

VP OF CONTENT
Jon Hughes
jhughes@lexipol.com

GRAPHIC DESIGN
Ariel Shumar
ashumar@lexipol.com

CONTENTS

Cover photo/Drew Neal

CARRY WITH CONFIDENCE

Meet the XL Extreme™ 400P

You don't flinch in the face of danger. Neither should your radio. The **XL 400P** is tailor-made to keep your team connected in the most extreme conditions. **ALL IN**

XL EXTREME™ 400P

Built to the most rigorous fire standards.

+ Extreme durability
+ Extreme simplicity
+ Extreme connectivity

Scan with camera.

L3HARRIS™

MAYDAY!

I'M TRAPPED IN THE BASEMENT

Lessons from my mayday experience

Photos / Colerain Township (Ohio) Department of Fire and EMS

The after-action review gives our future selves a fighting chance to survive the unexpected and thrive in an unpredictable career

By Steve Conn

March 21, 2003, began like any other spring day in Cincinnati – gloomy, overcast and humid.

Colerain Township Station 26's crew had just completed our morning checks and was sitting down at the dayroom table for a briefing and a cup of coffee when we heard that Cincinnati Fire, our neighbor to the south, had a mayday situation and it didn't sound good.

Our thoughts and attention turned to our brothers and sisters from CFD as we learned about the tragic death of 25-year-old Firefighter Oscar Armstrong III of CFD Engine 9. We spent that morning reflecting on what it means to be a firefighter, the risks we face, and the toll this profession takes on our families.

After lunch, I took my crew into the bay, and we practiced firefighter safety and survival techniques – drags and carries, radio procedures, disorientation drills. This was our way to honor the memory of a local brother whom we had never met. It's what firefighters do. We look for ways to make sense out of tragedy, and this is how we chose to do it, thinking we most certainly would NEVER have to use these skills for ourselves.

Aggressive attack – without all the intel

Runs came and went, fire alarms distracted us, and my crew of eight sat down to a late dinner.

As we were cleaning up, Engine 26 was dispatched first due to a working structure fire. Station 26 sent the Engine, Rescue and Medic as part of a one-alarm complement to a working fire in a small residential occupancy.

Car 2503, the off-duty assistant chief, arrived on scene first with a working fire in a single-story ranch and declared an offensive strategy. When I arrived in Engine 26, I saw a working fire showing at the front window and heavy fire involvement in the attic. I was going in!

In 2003, the standard on-scene report simply stated if we had a fire or not. The 360-degree walk-around just wasn't a "thing" yet. We typically felt that looking at three sides of a building was sufficient to get a good look at what we faced. Therefore, my radio report just mentioned the lightweight wood truss roof with heavy involvement. Had I completed a walkaround to the rear, I would have noticed that there was a walk-out basement with heavy fire that had already broken out a window, had spread up the side and into the eaves of the roof, thus giving us both a basement and an attic fire – a deadly combination that certainly would have warranted a reconsideration of the declared strategy.

I concluded that entry into the home would best be made through the breezeway between the house and the attached garage. Upon entry, we were immediately hit by high heat and heavy, dense smoke. We pushed our way into the kitchen and began knocking down the fire in the living room through the kitchen. I had left my thermal imaging camera by the door and asked my rookie firefighter to turn around and get it while I took a quick look down the hallway.

This is how quickly things happen.

A long fall followed by panic

As my rookie turned around to get my TIC, I leaned a little bit to get a view of the hallway when the floor suddenly opened, plunging me into the basement. The fall was 8-10 feet (standard basement height), and I imagined I rode the hose gently down to the floor.

We began knocking down the fire in the living room through the kitchen. I leaned a little bit to get a view of the hallway when the floor suddenly opened, plunging me into the basement.

Immediately after landing, I sprung to my feet and looked around to get my bearings. I remember things being eerily grayish-orange, but I could clearly see the hole that I had fallen through.

“EMERGENCY TRAFFIC! EMERGENCY TRAFFIC!” I called into my radio. I quickly realized that this was WAY WORSE than just “emergency traffic.”

“MAYDAY! MAYDAY! I’M TRAPPED IN THE BASEMENT! I FELL THROUGH THE FLOOR! RIGHT BELOW THE LIVING ROOM!”

Command’s voice was calm and reassuring as he acknowledged the mayday and activated our rapid-intervention team (RIT).

Another firefighter was on the floor above me, lying down with his hand extended through the hole for me to hold and give me hope. I reached for the hand and yelled, “Don’t pull me up!” For some reason, I remembered Firefighter Bill Ellison, whom I had worked with, who was killed in a basement fire just two years prior to this, and when they went to pull him up through the hole, his gloves came off.

I certainly didn’t want that happening here. I just stood there and held his hand.

Looking back, it’s funny the things you remember during a stressful event. I imagined I had ridden the hose to the floor, when in fact, I fell 8-10 feet, and landed on my head. I thought the basement wasn’t on fire because I wasn’t hot, nor was I burning, when in fact the firefighter laying on the floor above me was receiving burns to his under-arm surface as he held my hand, and my other firefighters told me they were knocking flames down around me. I remembered panicking. I pictured Bill in my mind yet was strangely comfortable.

Fire command instructed me to turn on my PASS device, stay calm and try to get my bearings. His reassuring voice helped me to regain my focus.

I thought the basement wasn't on fire because I wasn't hot, nor was I burning, when in fact the firefighter laying on the floor above me was receiving burns to his under-arm surface as he held my hand, and my other firefighters told me afterward that they were knocking flames down around me.

Calmness led to self-rescue

According to radio traffic, I was trapped for about six minutes, holding the firefighter's hand off and on while trying to locate any kind of escape route. At some point, I just reached out my hand and identified some kind of structural component at a 45-degree angle. It could only be a stairwell, I concluded, and pulled my hand away from my brother above me. I had located the basement steps and quickly climbed them to the top.

When I had become a lifeguard 20 years earlier, I was required to memorize the definition of panic: "A sudden and overwhelming terror that destroys a person's capacity for self-help." I must admit, at this point, I was in full panic mode. I didn't do the firefighter crawl up the stairs, nor did I not stay to the outside of the treads. I bolted up the steps only to be stopped by what I had perceived as a wall at the top of the stairs. I remembered thinking what a stupid thing to do, to put a wall at the top of the stairs. I began beating the "wall" until I had ripped the "wall" off its hinges and I was able to escape to the outside.

Once outside, I radioed to command that I was out. He quickly acknowledged my situation but continued with the mayday operation. I was totally unaware that during the RIT operations, one member of the RIT crew had also declared a second mayday. His mayday continued to a successful conclusion as they were able to rescue him without any injury.

My mayday was over, or so I thought. The fallout of a mayday and near-miss event NEVER ends with the conclusion of the incident. We won't delve into all that here, but we will address how we, as fire service leaders, can learn from such incidents and even grow as an organization, all the while taking care of the needs of the firefighters involved.

Mayday aftermath and review

Looking back on this incident, there were clearly some things that went well, plus others that could have ended very tragically. As with every incident with unexpected occurrences, an after-action review (AAR) should be completed. Sometimes these reviews can be as simple as a one-page

document or even a discussion during a bumper huddle, while other reviews should be more involved, methodical presentations for all to see.

Here's what stands out from my mayday incident:

- **Incident command:** First and foremost, I have to acknowledge the incredible calmness and organization of the incident commander. This IC was a captain working as an acting shift commander. Our organization has always taken a very strong stance on incident command, and this night it paid off. His calmness and reassuring voice over the radio kept me calm and focused while he organized the fireground, activated the RIT, and continued with firefighting operations.
- **Muscle memory:** Our training earlier in the day in response to the Oscar Armstrong fatality in Cincinnati certainly paid off, as these firefighter rescue concepts were still fresh in everyone's mind, especially mine. Muscle memory is very real.
- **360 size-up:** The elephant in the room is undoubtedly the lack of a 360 size-up on arrival. However, as I stated earlier, this simply wasn't the practice in 2003. If it had been, I probably wouldn't have made an interior attack. If I had done one, maybe I would have entered through the walk-out.
- **AARs:** Going along with the 360 and the "what ifs," if we had done a thorough AAR on the incident, we may have recognized the need for a 360 and therefore began to stress its importance and require it as a new benchmark. If we had done the AAR, maybe our 2008 Squirrelsnest Lane incident never would have happened, and Captain Robin Broxterman and Firefighter Brian Schira would have known to perform a 360 size-up.
- **Support for members:** One of the other glaring omissions immediately following the incident was a follow-up and debriefing for those individuals involved. Anyone who has gone through a line-of-duty death understands the need for mental health services being offered to the members involved, but sometimes we seriously miss these critical near-miss incidents that can have many of the same thought processes and anxieties surrounding them.

Give our future selves a fighting chance

Today, we have the added benefit of years of hindsight. Consider how much has changed in the fire service since my mayday call. With this additional knowledge there's no reason to hold our "old selves" in contempt or to blame them for not knowing better. This is why we do AARs – to give our future selves a fighting chance in this never-ending, unpredictable career we love. 1

About the author

Steven G. Conn, MSOL, BSN, RN, EMT-P, is a battalion chief and public information officer for the Colerain Township (Ohio) Department of Fire and EMS where he has served for over 30 years. He has a master's degree in organizational leadership with a particular interest in organizational culture and how organizations are affected by major disturbances. He is also registered nurse with 30 years of experience in interventional cardiology.

WATCH:

Colerain Fire Mayday

See photos from the incident and hear the mayday audio between Lt. Conn and Command

BACK-TO-BASICS RIT TRAINING

Real-life mayday rescues need common sense and simplicity, not complexity

Content by Chris DelBello

I must confess that earlier in my career, I didn't really appreciate the power of the RIT assignment. I preferred being in the action.

I believe my disdain for the RIT assignment laid squarely on a lack of realistic training that underscored the importance of the role. Training was simply, "Learn your RIT bag," and deployment wasn't much more than, "Grab the RIT bag and stage." Well, that's not real training or real planning.

It seems that formal RIT activation and success is so infrequent that most companies do not want much to do with the assignment. There's only one case that I'm personally familiar with where the RIT reached the trapped firefighter and removed him. In this incident, the firefighter was conscious but pinned by roof structural materials in a collapse.

The RIT likely wasn't able to use any of the scenarios they had trained for, as the downed member was out of reach from the RIT. The RIT officer had to remove his own SCBA, add an additional 8-foot length to the air hose from the RIT bag, and then use a pike pole to slide the replacement mask to the trapped firefighter. The trapped firefighter donned the mask, and the RIT went to work on removing the roof pieces that were pinning his legs. This RIT officer made on-the-fly decisions to quickly rescue the trapped firefighter.

This is reality, folks. This was a real deployment of a formal RIT. Training, understanding and common sense are all critical in times like this.

The importance of establishing a formal RIT should never be downplayed. RIT is for us. We only have each other in a mayday situation. Who else is going to come?

The gold standard

Recently, there have been some online discussions, social media posts and even speakers on the conference circuit downplaying the role of RIT. Good thing for the rest of us that NFPA 1407, NFPA 1710 and NFPA 1720 all very specifically lay out training and deployment recommendations for RIT. Regardless of anyone's opinion about the NFPA, these standards are the law of the land, so to speak, and to ignore or downplay the recommendations could cost you your job and even land you in court.

Selecting, staging and deploying RIT bags and other associated equipment should be different tactical decisions. Equipment decisions should be made based on size-up, radio reports, and the training level and experience of the RIT assigned to the mayday.

Yes, statistics show that most firefighter maydays are handled by interior crews or the crew itself; however, to suggest that we should dismiss the need for a formal rapid-intervention team (RIT) is a narrow-minded train of thought that ignores the potential for a catastrophic event in which multiple crews are needed for intervention. In other words, if you are focusing your RIT training

Deploy an uncharged and unstaffed 2½-inch handline to the Alpha or Charlie side for rapid knockdown of any fire that follows a catastrophic event. The handline can be quickly staffed, charged and flowed into the structure while another crew deploys any additional handlines.

entirely on interior companies working single-family occupancies, then it's time to shift your approach to one that incorporates a formal RIT.

No matter if you are adding companies to the first attack line to get the hoseline in position faster or adding a company to act as an interior RIT, you are still placing that interior RIT under the same roof that could collapse on the attack team. If your department experiences a catastrophic fire event with trapped or downed firefighters, the formal RIT is the gold standard that will save time and lives.

Simplicity and common sense

Simple, common-sense approaches to firefighter RIT training and operations – this is what the fire service needs. Simplicity equates to time-saving and lifesaving. Once you have mastered the basics, then you can build your knowledge for those more extreme events.

Some training groups, self-proclaimed "experts," and equipment manufacturers have taken RIT to entirely new and absurdly extreme levels that are actually counterproductive to the RIT mission. Gadgets may have their place in some instances, but it's essential that RIT officers focus first on common sense, considering when and how to deploy tools in a manner that will aid the mission.

Snatch-and-grab or load-and-go techniques should be primary tactics for the RIT. Just because you have the equipment or have trained on complex methods doesn't mean you should use them if the scenario does not call for it. Use the approach that will save time and serve your safety and that of the downed firefighter. For example, if RIT comes across a non-breathing firefighter, taking the time to put them on air is a complex operation that typically takes 3-5 minutes in a zero-visibility environment. Focus instead on getting the downed firefighter out of the building where more focused life-saving medical procedures can be initiated.

Remember, we should not be looking for an easy method to remove a downed firefighter; we should be using a quick method. In a mayday situation, easy is not necessarily fast. Simple is quick and quick plans in our profession require a lot of physical exertion and brute force and that's what we need to train for. It doesn't get any simpler or faster than using physical force to move the downed firefighter out of a building to receive the care they need.

A proactive RIT

It's time to rethink our idea of a formal RIT starting with some basic questions:

- What should the RIT do?
- How should RIT be deployed?
- What type of equipment should accompany the RIT deployment?

A well-trained RIT should not be hampered by hardline procedures or guidelines. The RIT should almost be like a freelance crew that was given pre-approval to do whatever is necessary

If a RIT is staged, this does not mean they should be sitting idly by. The officer should do a quick size-up of the exterior. They can look for and remove anything that could create an issue if the RIT was deployed.

outside of the structure, and then determine what equipment they would bring inside with them if they are deployed for a mayday.
A formal RIT staged at the entrance of Side Alpha simply waiting to be deployed is a waste of resources. Use the team! The RIT can and should do their own size-up – an assignment encouraged and supported by the IC. Further, the RIT can soften the building while doing their size-up, they can get a general layout of the building, and they can determine how deep the interior crew is based on looking at the hoseline and even possibly looking through windows during their size-up. This will also give them a good idea of the interior conditions.

In doing their own size-up, the RIT can determine what equipment they might need, eliminating unnecessary equipment that would only slow operations in the event of a deployment. Also, in softening the building by removing any exterior burglar bars, boarded-up windows and calling for ladders to be placed, the RIT may prevent the need to ever be deployed in the first place by providing immediate access or egress for a crew that experiences a mayday situation.

On larger buildings, division officers should request an additional crew as a formal RIT. This RIT would not have all the needed information, but the RIT officer could make a quick recon up to the nozzle to get an idea of conditions and possible layout, then report back to their crew to come up with a game plan and potentially needed equipment.

Lastly, don't discount the role of gpms. An unstaffed 2½ -inch hoseline placed near the action, ready to use, can be a game-changer and time-saver during a catastrophic fire event. It does not have to be staffed by the RIT members. Anybody could pick it up and start flowing in the event of a catastrophic collapse, knocking down fire as the RIT is deployed. While the 2½-inch hoseline is not a RIT function, a RIT could call for it to be pulled and placed at a specific location.

RIT training focus on drags and lifting.

Training time

There's plenty of RIT training out there. The problem: So much of it is overly complex or lacks reference to common-sense deployment and decision-making. We could go over 100 scenarios, but if you're faced with a real-life mayday situation that wasn't covered in one of those scenarios, you'll need to revert to basic training rooted, again, in solid decision-making. Train members to use critical thinking to quickly make the save.

Most of your RIT training should be focused on simple tasks like drags, carries, lifting and the use of ground ladders. I can say without a doubt that removing a firefighter or even a victim by use of ground ladders is a weak spot for many fire departments across the country. We put in countless hours training on how best to search for a firefighter and secure a mask for them, but then fail to train for the actual removal of the downed firefighter.

The Denver Drill is one of the best drills for firefighter removal training, as it requires you to actually finish the scenario. Too many RIT drills involve searching for the downed firefighter, followed by a short drag. Any RIT drill should be performed to completion, meaning the downed firefighter is out of the structure, whatever that looks like in your training scenario.

When it comes to equipment, training should focus on how to deploy the most common tools carried on the fireground to help simplify the extraction process instead of needing to call for additional equipment. Further, knowing your equipment in the RIT bag is critical to success. It doesn't make much sense to carry around that heavy RIT bag full of all those gadgets if you and your crew are not proficient in the use of that equipment. If you're deployed as part of the RIT, you're already going into a situation that went bad for a fellow firefighter. Whether it's unnecessary equipment, lack of training or a poor plan, you do not want to bring additional problems into the situation.

RIT training should focus on firefighter removal from the second floor. Firefighter removal can be accomplished with one ladder if the members are physically capable, but it is safer and easier with multiple ladders. When the RIT locates a firefighter on an upper floor, a staged crew can be deployed to utilize the ladders. Training on this method may seem awkward at first, but with repetition, this method becomes quite rapid and fluid.

The Denver Drill is quite possibly the best training drill. It provides for realistic firefighter removal and the strength requirements necessary a perform it. If drilled on enough, it doesn't necessarily become any easier, but it does become quicker and a more fluid operation as your members begin to get on the same page working and training together.

Officer training

Officers who receive the RIT assignment need to be prepared to actually lead in these instances. The officer should perform a quick recon of the situation and determine the equipment that will be needed inside the structure. The officer will need to minimize unnecessary equipment or actions being added to an already chaotic situation.

Speaking of chaos, it is the officer's responsibility to remove or limit the amount of chaos associated with the situation inside the structure as well. To do this, the officer should be training their crew frequently on RIT/firefighter-down scenarios. Train them to full comprehension – how, what, why and when.

Critical communication

Fireground communication is critical. Communication is listed within the top five factors related to almost every LODD report involving interior operations that has been produced in the last 24 years. Being able to successfully communicate with the IC and have them understand what you are trying to express is critical and, unfortunately, uncommon.

Solid communications begins before the incident. Train with officers from your department, and even outside of your area, to help eliminate any confusion on the fireground. Let the ICs know your capabilities, plans, and explain any jargon or buzzwords they may not know. This will simplify your communications on arrival and will get the RIT into operation quicker with less radio traffic.

In closing

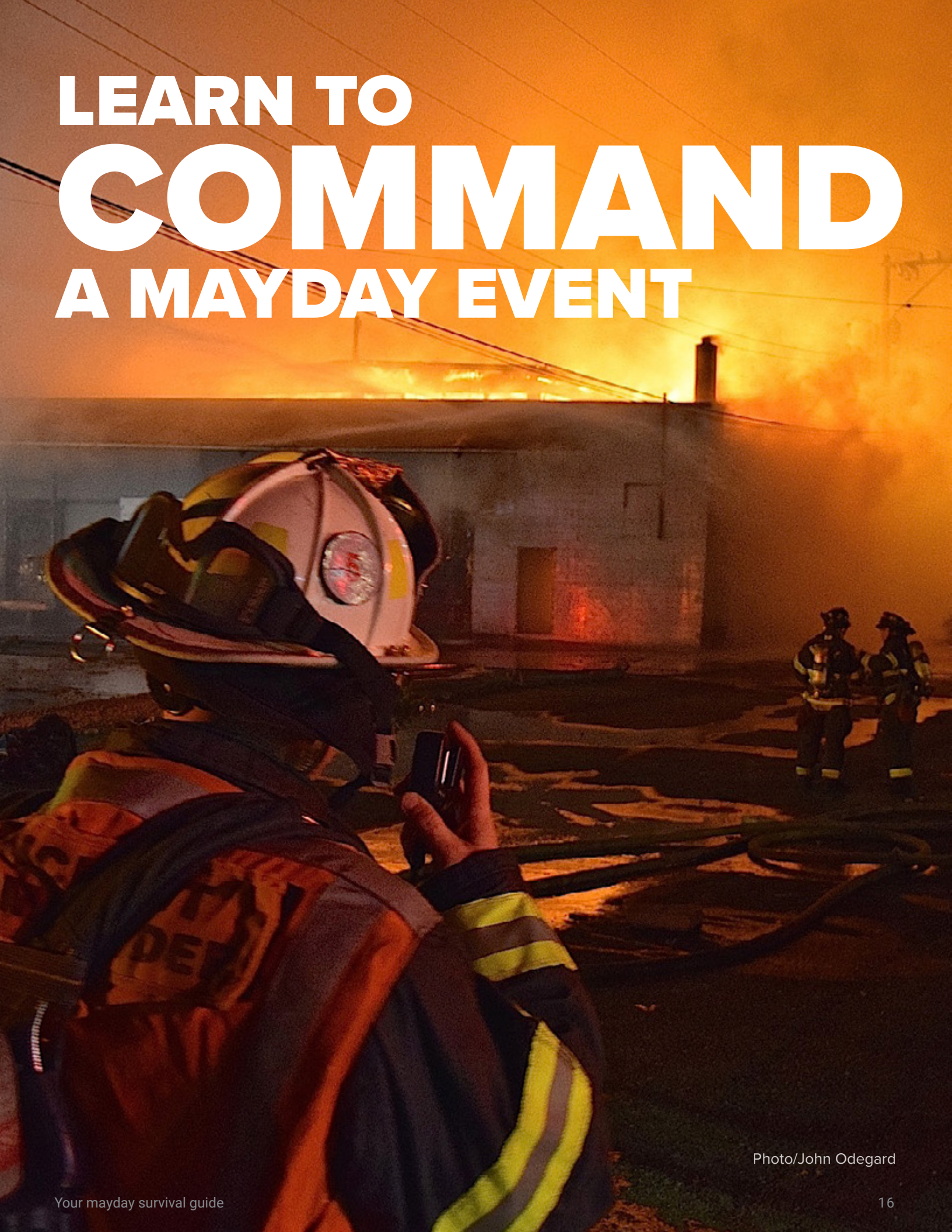
In a zero-visibility environment, a non-breathing, unresponsive or a badly injured firefighter does not have time for you to be running complex, potential irrelevant training scenarios through your mind. The key is realistic, common-sense training and operations. I cannot stress enough how important it is to keep your RIT operations simple. Make your scenarios and drills realistic, but keep your operations simplified and minimize the need for extraneous gadgets that only add confusion into an already chaotic situation. Focus training on drags, lifting, ladders and basic hand tools, as this is where we can keep things simple and save time from the beginning. Communicate with your ICs before an incident occurs, as this allows for better understanding and buy-in related to crew abilities. Communicate frequently and use a lot of common sense when deploying RIT operations.

Train a lot and stay safe.

About the Author

Chris DelBello is a 31-year veteran of the fire service. He currently holds the rank of senior captain with the Houston Fire Department, working in the Midtown District. He is also the district training officer, which encompasses all the stations in downtown and midtown. DelBello holds a Training Officer II certification and serves as an adjunct instructor with Houston Community College.

LEARN TO COMMAND A MAYDAY EVENT



Photo/John Odegard

ICs need training reps to practice strategic deployment of resources, backup plans and communication skills

By Vince Bettinazzi

I trained on rapid intervention team (RIT) evolutions pretty frequently as a firefighter. And this training was even more frequent when I was an officer, as we seemed to routinely have a probationary member at the station who needed to learn our emergency procedures and gain some valuable training reps.

Now as a battalion chief, I realize the importance of learning how to effectively command a mayday incident. No longer am I the member of a company who is experiencing the emergency, but rather the person coordinating my crew's safety. Chief officers owe it to themselves and their members to routinely practice this command skill set.

With this as our backdrop, let's review some mayday statistics, the possibility of redeploying resources, and why having a mayday worksheet is a must for the incident commander.

Project Mayday stats

Project Mayday is really a powerful program. Kudos to Don Abbott for creating a database focused specifically on mayday events and contributing factors.

The project collects data from career and volunteer departments. The 2020 career statistics on mayday rescues tell us that only 6.6% of rescues were performed by the RIT, while 35% was self-rescue, 26% was the victim's crew, and 25% was completed by another "interior crew."

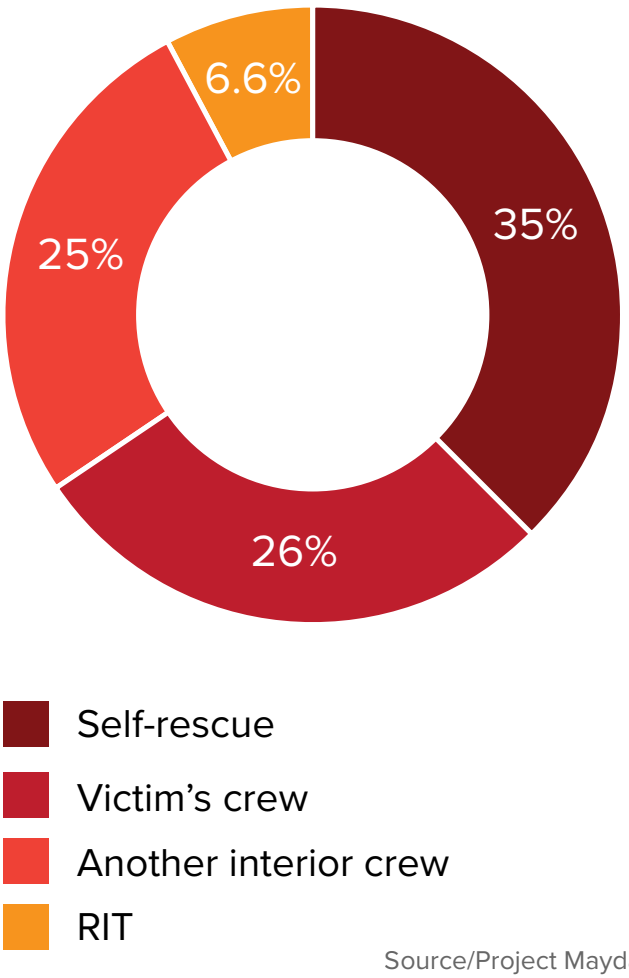
Other important details from the research:

- The largest percentage of maydays occurred between midnight and 3 a.m.
- The initial-arriving company was most commonly involved.
- Over 50% of mayday incidents did not have an initial 360 size-up conducted.

Routine training doesn't cut it

Almost every RIT/mayday training scenario we conducted was, quite simply, too routine. We would respond as a RIT, find the lost, injured or trapped firefighter, and then successfully work through the problem and remove the firefighter from harm.

Who effects the mayday rescue?



Source/Project Mayday

Chief officers must work through training scenarios to prepare for mayday incidents. Study LODD reports, listen to recorded mayday radio traffic, and review the research from Project Mayday.Photo/Spokane Fire Department Media Services

We never trained for failure. Think about that. Have you recently participated in a training evolution that didn't work out, where plan A failed, causing you to pivot to plan B or even to plan C? We always "win" while training, and RIT evolutions are no exception.

After studying the statistics from Project Mayday, I shifted my training priorities as a company officer toward self-rescue air-consumption drilling and rescue techniques as interior operating companies. Most of our training focused on solving personal emergencies, meaning how to recover and respond to a bad situation as a singular member or company. We also worked on RIT procedures as a company, and learning how to troubleshoot another member's emergency, or remove them from the structure as part of an operating company instead of a RIT – the company training evolutions that were supported from statistics by Project Mayday.

Strategic redeployment of resources

If a significant number of mayday emergencies are effectively mitigated by other interior companies, then why would the IC not redeploy operating units to aid the stricken member in addition to the RIT? The reflex time is minimal in comparison to the time it takes to deploy a RIT. Yes, there are factors that can affect response from other interior companies, for example, companies engaged in active firefighting. But isn't the primary role of the initial RIT to locate and assess the needs for the mayday firefighter? And yes, I say initial RIT, as a significantly trapped, unconscious or severely injured firefighter(s) may take several personnel to efficiently remove the member in addition to the initial RIT.

Here's a story that may cause you to seriously consider this idea of redeploying primary search companies to assist with RIT: Yearly, we conduct a multi-company live-fire drill inside our three-story burn building. We never simultaneously practice

or build in a mayday scenario into our live-fire evolutions. This is done to prevent confusion and for the safety of our participating members who could miss or fail to respond to a potential emergency appropriately.

About 15 minutes into the training evolution, a mayday was transmitted over the radio for a member experiencing a medical emergency. The member was inside the burn building and had been assigned to the second hoseline. I acknowledged the emergency and deployed our RIT. However, our member was immediately located and removed by the interior company assigned to secondary search within a minute or two of the radio broadcasts. The RIT never entered the building, and all ended well for the ill firefighter.

ICs need training reps, too

Remember all the RIT scenarios you got to conquer as a firefighter and company officer? Well, how many reps have you been able to get in as shift commander? Does your department build in scenarios to bolster your command skills for such an event?

Unfortunately, we probably don't receive the preparation we all need to be well prepared for a mayday incident. As chief officers, we owe it to ourselves and our crews to work through training scenarios as the incident commander. Study LODD reports, listen to mayday radio traffic, review the research from Project Mayday. These are all valuable resources that can assist you in your preparation. Participate in company training evolutions. Be the voice on the other end of the radio as your members conduct drills. If you have the opportunity to schedule multi-company RIT training, do it and learn with everyone else.

Have a cheat sheet

Of course, you're not going to remember every procedure during an emergency as an incident commander. A fireground mayday is one of those events that can rattle even the most seasoned of ICs. As such, it's important to have a quick reference sheet to assist you through the process of commanding an incident scene with a mayday.

Does your department have a template for you to utilize or even an established procedure? Even if it's basic, it will be better than looking a blank piece of paper or command board while your hands are shaking, your heart is pounding, and the stress of the scenario overwhelms you.

You can tailor almost every basic command sheet to transform it into a mayday template. Important benchmarks and orders need to be included so it can function as both an operational checklist and command board during the event.

I encourage you to create your own version of the "Mayday Playbook" on page 20 to serve as a mayday command cheat sheet.

I hope all of this information is helpful to you. The goal is to be prepared to handle a worst-case scenario as an incident commander. 1

About the Author

Vincent Bettinazzi is a battalion chief with the Myrtle Beach (South Carolina) Fire Department, where he has served since 2007. He is a certified USLA Lifeguard on the MBFD's Ocean Rescue Team. He completed the NFA's Managing Officer Program in April 2016, with his capstone project focused on ocean rescue response and resources.

Photo/Trevor Frodge

Create your 'Mayday Playbook'

FIRE RESCUE 1

The IC's step-by-step mayday checklist

By Vince Bettinazzi

- ☐ Acknowledge the mayday
- ☐ Transmit "All units, hold your traffic. Unit calling, go ahead with your mayday."
- ☐ Gather **LUNAR** update and other conditions:

> **L**ocation
> **U**nit
> **N**ame
> **A**ir/**A**ssignment
> **R**esources
>
> **Conditions**
> Trapped/pinned
> Lost/disoriented
> Low air/SCBA malfunction
> Injured/needing medical
>
> **Note: If needed, utilize dispatch's audio playback feature, seek preplan of structure, and conduct PAR if unknown.*

- ☐ Transmit "I copy your mayday. [Repeat LUNAR information back] Activate your PASS alarm and begin self-rescue. The RIT is on the way."
- ☐ **Deploy the RIT.**
- ☐ Request an additional alarm with ALS medic unit.
- ☐ Reassign primary search to assist the deployed RIT.
- ☐ Assign a hoseline to support the RIT operation.
- ☐ Assign a RIT Group Supervisor.
- ☐ Replace deployed RIT with backup RIT on standby.
- ☐ Establish staging/assignments for additional alarm companies.
- ☐ Assign fire operations to another command officer.
- ☐ Assign fire operations to a separate TAC channel, if needed.
- ☐ Conduct a PAR to verify all assigned companies are on the fire operations channel.
- ☐ Constantly evaluate risks vs. benefits.

After the rescue

- ☐ Transmit an all clear (or something similar that the down firefighter has been rescued)
- ☐ Confirm that dispatch has notified fire executive staff.
- ☐ Maintain city coverage.
- ☐ Activate CISM and provide company support or replacement.
- ☐ Notify Risk Management for severe injury or fatality.

Photos/L3 Harris

THE PORTABLE RADIO: A FIREFIGHTER'S OTHER MAYDAY LIFELINE

Radios serve as a critical communications and safety tool on any hazardous scene

By Robert Avsec

Every fire apparatus carries two types of lifelines. One is a life safety rope, and the other is your portable radio.

Ask most firefighters and fire officers to name one piece of equipment with which they have a love/hate relationship, and you can bet that most are going to say something like, "the @$&!ing portable radio!"

They love it when it does its job and they don't have to think about it. And they hate it when it doesn't – those times that cause a firefighter or fire officer to curse "this worthless brick!"

A critical safety tool

That portable radio quickly becomes a lifeline the moment a firefighter finds themselves in any of the following "Mayday Decision" situations as defined by Dr. Burton Clark in his book "I Can't Save You But I'll Die Trying" (p. 164):

- You've fallen through a roof, through or down a set of stairs, or through a floor.
- Your primary exit is blocked by any type of collapse, and you cannot reach a secondary exit within 30 seconds.
- You are caught in a flashover condition or recognize that a hostile fire event is about to occur, or your primary exit is blocked by fire.
- You've lost your mobility for any of these reasons – entanglement, trapped, pinned, stuck, caught or wedged – and cannot extricate yourself within 60 seconds, or your SCBA low air alarm activates while you are trying to extricate yourself.
- You've become disoriented or confused inside a structure within an IDLH environment and are no longer sure where you are or where the exit is located because you have lost contact with your crew, your hoseline or your rope lifeline, and you cannot reconnect within 30 seconds.
- Your SCBA's low air alert device activates, and you cannot positively reach an exit door or window within 30 seconds.
- Your SCBA malfunctions, or you have difficulty with maintaining proper operation of your SCBA for any reason while operating within an IDLH environment.
- You are operating within an IDLH atmosphere, and you become injured or sick and your crewmembers cannot safely assist you out of the building immediately.

Without a working portable radio, and your ability to use its safety functions, you are at serious risk for injury or death.

Designed to enhance firefighter safety

If you ask firefighters for some of their most common complaints about their portable radio, many will likely say one of three things:

1. I can't operate the controls with my gloves on.
2. I have a tough time ensuring I'm on the correct channel.
3. It's hard to see the control display in low-visibility environments.

Those are exactly the sort of problems you don't want to face in a mayday scenario.

Advances in technology have enabled manufacturers to develop portable radios that provide tools critical to a firefighter's ability to survive a mayday event.

L3Harris Technologies, a leading manufacturer of portable radios for the fire service, has expanded its family of XL Project 25 (P25) radios by introducing its XL Extreme 400P, which includes features designed for ease of use, especially in hazardous conditions:

- "Glove friendly" to ensure ease of operation by a firefighter in full PPE.
- Large Emergency Activation Button (EAB) for use with gloved hand.
- Loud audio by default for use in loud environments.
- Confirmed power-off feature to prevent accidental power down.
- Multiple new voice annunciations to indicate the unit is powering off, over temperature, has a low or dead battery or that a failed RSM has been attached.
- Cable faults detection that assesses if the RSM cable has been compromised and alert the user via a voice announcement that the radio has automatically reverted to its internal microphone and speaker.
- "Over temperature" detection to alert the user that they are operating the radio and RSM outside of their safe temperature range.
- Support Bluetooth-capable accessories, such as an SCBA mask.

It's vital that firefighters have a portable radio with features designed for ease of use, especially in hazardous conditions.

Essential command tool

When a firefighter declares a mayday, the incident commander must quickly take two critical actions, and both involve portable radios:

1. Assign fire operations to a separate tactical channel and have everyone except the distressed firefighter move to that second channel.
2. Remain in direct radio contact with the distressed firefighter until the mayday has been resolved.

The XL Extreme 400P, in addition to the features described above, includes several attributes that make it easy for the IC to execute those critical actions following a mayday declaration and during the ongoing firefighter rescue:

- A Visual Zone Detection Indication feature provides the IC, and everyone on the fireground, with quick visual confirmation that all users are on the same radio group or channel. It also delivers loud clear audio with noise cancellation for added clarity.
- LTE operations capability gives the IC the ability to transmit and receive voice or data over FirstNet, AT&T or Verizon networks. The XL Extreme 400P also has Wi-Fi, Bluetooth and GPS capabilities built in, and the dual SIM design allows multiple carriers on the same device.
- The XL Extreme 400P provides interoperability during multi-agency responses (much more common today, especially in areas served by volunteer-staffed departments), as well as secure voice and data transmission.
- With its data logging capability, the radio functions as a "black box," like the flight data recorders carried aboard commercial aircraft, that enables the radio to store critical data (the last 200 events) for after-action reports.

Up to the challenge

Your fire department's portable radios are likely your most-used piece of equipment, as they get used by your crews on every call for service. Communication is an important part of any emergency response, but the need to communicate under extenuating circumstances takes a quantum leap when a firefighter must declare a mayday. Will your portable radios be up to the challenge? 1

Read More: Phoenix Regional Standard Operating Procedures: Mayday Readiness and Response (PDF)

About the author

Battalion Chief Robert Avsec (ret.) served with the Chesterfield (Virginia) Fire & EMS Department for 26 years. He was an instructor for fire, EMS and hazardous materials courses at the local, state and federal levels, which included more than 10 years with the National Fire Academy. Chief Avsec earned his bachelor's degree from the University of Cincinnati and his master's degree in executive fire service leadership from Grand Canyon University. He is a 2001 graduate of the National Fire Academy's EFO Program. Beyond his writing for FireRescue1.com and FireChief.com, Avsec authors the blog Talking "Shop" 4 Fire & EMS.

ABOUT THE SPONSOR

L3Harris Public Safety and Professional Communications is a leading supplier of communications systems and equipment for public safety, federal, utility, commercial and transportation markets. The business has more than 80 years of experience in public safety and professional communications and supports more than 500 systems around the world.

L3HARRIS
FAST. FORWARD.

MORE FIRERESCUE1 RESOURCES

WATCH: BEYOND BOYD STREET: INSIDE THE BLAST THAT INJURED 11 FIREFIGHTERS

In this on-demand webinar, LAFD Fire Chief Ralph Terrazas leads a panel discussion about the 2020 explosion and mayday that rocked the department.

LISTEN: DON ABBOTT DETAILS KEY TAKEAWAYS FROM PROJECT MAYDAY RESEARCH

In this episode of the Side Alpha Podcast, Chief Marc Bashoor speaks with Project Mayday creator Don Abbott about what firefighters can glean from mayday data.

View the complete mayday special coverage series at firerescue1.com/mayday-survival-guide

FireRescue1 Academy

FireGrantsHelp

FireRescue1 Newsletters

FireRescue1 Product Deals

FireRescue1 Videos

Learn more about mayday incidents, including resources for training and prevention, on FireRescue1.com

FIRERESCUE1.COM