



FIRE AND RESCUE DEPARTMENTS
OF NORTHERN VIRGINIA
FIREFIGHTING AND
EMERGENCY OPERATIONS
MANUAL

RAPID INTERVENTION
TEAM (RIT) COMMAND
AND OPERATIONAL
PROCEDURES

Third Edition

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Kyle Robert Wilson
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This revision of RIT Command and Operations manual is dedicated to the life and memory of Technician I Kyle Wilson, Tower 512, Prince William County Department of Fire and Rescue. On April 16, 2007, Technician I Wilson gave the ultimate sacrifice while performing a primary search at a house fire in Woodbridge, Virginia. Kyle's tragic death will never be forgotten and should serve as a constant reminder of the risks firefighters face on a daily basis. Firefighter safety and survival is our greatest priority. The *Rapid Intervention Team* is a key component to enhance the safety and survival of our members.

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PREFACE/EXECUTIVE SUMMARY

The purpose of this manual is to establish Mayday procedures, command procedures, and identify optional levels of rapid intervention capability to assist fire and rescue personnel who may become trapped or missing while operating within hazardous environments.

The Rapid Intervention Team (RIT) writing group was tasked with reviewing and revising current procedures to further enhance firefighter survivability while operating in an Immediately Dangerous to Life or Health (IDLH) atmosphere.¹ The procedures recommended intend to accomplish this by ensuring adequate RIT resources are available given the incident conditions, improving communications during a Mayday event, establishing minimum training and equipment standards for the RIT, and forming and expanding a RIT group as needed.

According to a study published in 2011², firefighting was ranked as the second most stressful and dangerous job in America – second to enlisted men and women in the U.S. Armed Forces. Firefighting is an inherently dangerous profession. Chief Vincent Dunn (retired) from the FDNY said it best when he said, “We must learn from those who have gone before us, we can pay tribute to those who have paid the ultimate sacrifice by studying what went wrong and correcting the chain of events in the future.” The theory and concept of Rapid Intervention Teams to protect and rescue our own members on an incident where an IDLH is present is not new. There has always been a desire to improve these operations in an attempt to reduce the number of line of duty deaths (LODD) each year. Therefore, in accordance with the policy to review each manual every three years, a group was formed to review the current RIT Manual. This committee was also tasked to make any proposals or revisions where necessary to further enhance firefighter survivability while operating in an IDLH atmosphere.

After conducting extensive research on incidents where there were firefighter fatalities and or near-misses both in the region and across the country there were several key factors that kept reappearing. Communication has been a major factor affecting viable rescues for as long as radios have been used. Breakdowns in communication have contributed to LODDs, an example being the Hackensack Ford Dealership fire on July 1, 1988, in New Jersey.³ Communication issues have been a key factor in LODDs and near miss incidents within our own region in Prince William County and Loudoun County. Radio traffic initiated by firefighters making their last efforts to call for help by declaring a Mayday has been missed for years. Readers will notice that in this third edition, changes have been made to how a firefighter declares a Mayday as well as how each Emergency Communication Center will react once a Mayday is declared.

One of the other major concerns is the ability to truly affect rescues in a timely manner. As proven in the Phoenix Fire Department’s study on this topic⁴, it takes approximately 12 firefighters to rescue one firefighter in distress, and one in five members attempting to affect the rescue will have an emergency of their own. Prince William County Department of Fire and Rescue conducted a review of six Mayday incidents that occurred within the NOVA region and found that the average time a Mayday was declared was approximately nine minutes after the

¹ <http://www.cdc.gov/niosh/idlh/idlhintr.html>

² <http://www.careercast.com/content/most-stressful-jobs-2012-2-firefighter>

³ <http://www.nfpa.org/assets/files/PDF/Research/DealershipHackensack.pdf>

⁴ <http://phoenix.gov/FIRE/report.pdf>

arrival of the initial companies. According to NIOSH, this average (initial arrival to Mayday declaration) was 13 minutes in incidents where a LODD occurred. It can be inferred that the faster resources arrive at the scene and the greater the number of available resources are on the incident scene prior to the declaration of a Mayday, the greater the chances are to make effective rescues. As a result of the studies reviewed and their findings, the levels of RIT that will be described herein have been altered and increased and clearly defined triggers to augment these resources have been created.

The training and survival techniques from previous editions have been removed from this *RIT Command and Operational Procedures Manual*. However, that does not diminish the importance of this content. These topics will be addressed in a separate document developed by the NOVA Technical Writing Committee. Firefighters must remain proficient in the subject matter contained in this manual, in radio operations, and in the use of the equipment provided by their departments for firefighter rescue.

The desire of this group is to have developed a manual that will be user friendly for all levels of rank and experience in the fire service and which will be applicable for most incidents where an IDLH is present. It is imperative that Incident Commanders (IC) recognize that RIT needs to be established on more than just building fires and that it takes a significant amount of personnel to make effective rescues of viable firefighters. While this manual will go into extensive detail on the operations, command, and control of a Mayday there are several key factors that must be remembered.

- It is the responsibility of the company officer to conduct a size up of the incident and develop an action plan that keeps firefighter safety at the forefront.
- Firefighters must always be prepared to self-rescue and or assist with their own rescue should they find themselves in a situation where they feel the need to declare a Mayday. The negative stigma associated with the declaration of a Mayday needs to be removed to hopefully prevent a firefighter from delaying a call for help for fear of negative repercussions.
- Accountability is the responsibility of all members in a crew. A positive attitude from those members responding as part of any of the RIT levels is a must to ensure crews are ready for the potential seriousness of a Mayday situation. The primary goal for each of us is that “Everyone Goes Home” at the end of the shift.

The following are key changes that are found in this third edition of the *RIT Command and Operational Procedures Manual*.

Increasing RIT Resources

- Initial RIT – single resource identified as the RIT will be established on all incidents with a potential IDLH atmosphere.
- RIT Level 1 – One engine and a special service, preferably a heavy rescue, will be requested by the initial Incident Commander or the first due command officer when the incident is determined to be a working structure fire.
- RIT Level 2 – One engine, one truck, one heavy rescue, one battalion chief or command officer, and one ALS transport unit.
- RIT Level 3 – A minimum of two rescue companies or units with structural collapse rescue capabilities.

New Mayday Procedures

- Develop procedures which will improve communications when a Mayday is declared. Communications will also be improved during the rescue operations as well as during continuing suppressions efforts.

RIT Training

- Recommend minimal standards for initial and continuing training to assure proficiency.
- Remove specific techniques for firefighter rescue and self-rescue contained in current version in anticipation of the development of a separate training document dealing with these operations.

INTRODUCTION

The procedures outlined in this manual will apply to all fire and rescue department operations where personnel are required to enter hazardous environments that present an immediate danger to life and health (IDLH). Although the procedures have been developed primarily for structural fire events, they also apply to hazardous materials incidents and technical rescue incidents.

There is a narrow window of survivability for a firefighter who is out of air or trapped. Individual firefighters must not delay reporting to Command if they become lost, trapped, or are otherwise in need of assistance. Personnel must not delay reporting to command that they cannot account for members of their crew. Command officers must always assume that the missing firefighter is lost in the building until they can be located.

As firefighters, you should know your equipment and the limitations of each part of the protective ensemble. Knowing the operation and limitation of your breathing apparatus could be the difference between life and death.

Definitions

The key definitions used in this manual are:

- **Command Officer of Appropriate Level** – command officers identified by the individual jurisdictions that are qualified to fill specific command positions.
- **Emergency Traffic** – term used to communicate any urgent or important message other than a Mayday.
- **Heavy Rescue Capability** – a fire and rescue response unit staffed and equipped to perform structural collapse rescue (preferably at the NFPA 1670 Operations Level). This unit should be capable of cutting, breaching, and lifting light-frame or reinforced masonry building components and/or building contents such as furniture or appliances.
- **Initial RIT** – a single resource assigned from the initial alarm on an emergency event to achieve the RIT capability. Four personnel are recommended for this assignment; the minimum is three personnel.
- **LUNAR** – Acronym used to assist personnel in remembering the information they need to relay or gather in the event of a Mayday.

L – Location

U – Unit

N – Name

A – Assignment at time of Mayday

R – Resources/help needed

- **Mayday** – term used to report situations where a firefighter(s) are in distress or may require assistance in an IDLH atmosphere.

- **PAR** – acronym for Personnel Accountability Report.
- **PAR Check** – Command initiated accounting for (Roll Call of Units) for all personnel on the incident scene. Policies and procedures for PAR Check are found in the Command Officers Manual.
- **RIT** – acronym for Rapid Intervention Team.
- **RIT Level 1** – consists of one engine company and one special service apparatus, preferably a heavy rescue. These units are in addition to those assigned to the initial box alarm and will be requested by the initial Incident Commander or the first due command officer when the incident is determined to be a working structure fire.
- **RIT Level 2** – consists of one engine company, one truck company, one heavy rescue company or a unit with heavy rescue capabilities, one battalion chief or command officer of appropriate level, and one ALS unit.
- **RIT Level 3** – consists of at least two rescue companies or units with structural collapse rescue capabilities, a response unit with shoring capabilities, and support resources to include additional rescue tools, technical search equipment, and additional collapse rescue trained staffing. These units are in addition to those assigned to the initial and/or greater alarms.
- **ROAM** – acronym for Rule Of Air Management.
- **Trigger** – an action or circumstance that initiates a given response.
- **UCAN** – Acronym used to assist personnel in remembering the information they need to relay or gather in the event of a Mayday.

U – Unit
C – Conditions
A – Actions
N – Needs

- **Working Structure Fire** – A fire incident in a structure where more than one attack line will be deployed from pumping apparatus to combat the fire. An attack line is to be considered deployed when it is removed from the pumping apparatus.

MAYDAY PROCEDURES

A **Mayday** is a term used to report situations where a firefighter(s) are in distress or may require assistance in an IDLH atmosphere.

When Do You Report a Mayday?

As soon as you realize that you are at risk or lost, communicate with your crew and command with a **“Mayday”** and your best possible location in the building (floor, side, and quadrant).

Examples:

- Self-declared:
 - Lost/disoriented
 - Trapped
 - Low on air, which compromises egress
 - Medical emergency
- Third-party
 - Witnessed aforementioned situations
 - Command initiated

How to Call a Mayday?

Initial Mayday transmissions should include the following three phrases stated by the firefighter in distress:

- State “Mayday, Mayday, Mayday.”
- State the unit number three times, (e.g., “Engine 407, Engine 407, Engine 407.”)
- Finish by stating, “Command acknowledge.”

Once the Mayday is acknowledged by command, the following information should be transmitted by the firefighter in distress:

- Position and name (e.g., “Firefighter Smith.”)
- Location (e.g., “We are on floor 12, quadrant B-Bravo.”)
- Nature of emergency (e.g., “We have been cut off by collapse, one member is missing, our current air supply is 1500 psi.”)
- Finish by stating, “Command acknowledge.”

If not acknowledged by command, perform/transmit the following:

- Activate the Emergency Activation Button (EAB) on the portable radio, if possible.
- Activate your PASS device and briefly key your portable to get the attention of other firefighters or command. Deactivate your PASS whenever communicating via radio and reactivate once complete.
- State “Mayday, Mayday, Mayday.”
- State the unit number three times, (e.g., “Engine 407, Engine 407, Engine 407.”)
- State location (e.g., “We are on floor 12, quadrant B-Bravo.”)

- State the nature of the emergency (e.g., “We have been cut off by collapse, one member is missing, our current air supply is 1500 psi.”)
- State “Mayday, Mayday, Mayday.”
- Finish by stating, “Command acknowledge.”

Once the Mayday transmissions are complete, the distressed firefighter should manually activate his or her PASS device in an effort to make the location known to crews operating nearby.

If you are in a large open area and believe that you are lost, attempt to move to the closest wall. If you are conducting a search off of a wall, look for the nearest window.

COMMAND PROCEDURES

The Incident Commander has the ability to change RIT assignments as the incident dictates.

Initial Actions when Working Structure Fire is Determined

The unit or units that should be used to create the Initial RIT capability are designated in each NOVA emergency operational manual; the trigger for the creation of the Initial RIT capability is an incident dispatch potentially requiring operation within an IDLH.

To move up from the initial RIT, the initial IC shall request that a RIT Level 1 be dispatched as soon as a working structure fire is determined. In the event this is missed by the initial IC because of busy incident conditions, the first due command officer shall ensure that the RIT level 1 is dispatched if the incident is determined to be a working structure fire.

Note that if the initial IC immediately requests a second alarm, the initial IC will also need to request the RIT Level 1 resources **in addition to** the request for the second alarm assignment. Increasing the request to RIT Level 2 will be dependent on incident conditions and the determination of the IC. In short, when requesting a second alarm, RIT Level 1 is mandatory and must be requested by the IC whereas RIT Level 2 is optional. RIT Level 2 becomes mandatory for an IC to request if a Mayday is called.

Initial Actions upon Receiving a Mayday Call

- Acknowledge the Mayday and deploy the RIT Resources to the last known location.
- Make an incident scene announcement to communicate a desire for Emergency Traffic only and all that personnel shall maintain their current positions/assignments.
- Confirm pertinent information from downed firefighter (i.e., UCAN or LUNAR).
- Request accountability of crew that initiated the Mayday.
- Ensure the dispatch of RIT Level 2. *(See the next section for an explanation of the RIT levels.)*
- Initiate a PAR check to confirm accountability of all personnel operating in the IDLH.

Additional Actions after Receiving a Mayday Call

- Backfill the initial RIT for continued fire ground operations as soon as possible.
- As the situation dictates and resources become available, consider using additional radio channels for RIT Operations.
- Revise the incident action plan and incident priorities to a high-priority search and rescue operation.
- Development of a rescue action plan is critical.
 - Consider/request additional resources.
- Withdraw and control unassigned resources from the search and rescue area.
 - Control and restrict entry.

Command-Activated Deployment of RIT without Mayday Call

Command should initiate a RIT deployment without receipt of a Mayday when he/she deems necessary.

Examples:

- Unit resource missing after a PAR.
- Structural collapse with entrapment.
- Observes units/personnel in distress.

RAPID INTERVENTION TEAM OPERATIONAL PROCEDURES

This section covers RIT levels, RIT planning, proactive tasks, and RIT actions.

RIT Levels

This section will detail the RIT levels: Initial RIT, RIT Level 1, RIT Level 2, and RIT Level 3.

Initial RIT

An Initial RIT is a single resource, recommended to be comprised of four personnel but with a minimum of three personnel, assigned from the resources that make up the initial alarm on an emergency event to achieve the RIT capability. The unit or units that should be used to create the Initial RIT capability are designated in each NOVA emergency operational manual. (Typically, the fourth due engine is designated as the Initial RIT.) The trigger for the creation of the Initial RIT capability is an incident dispatch potentially requiring operation within an IDLH.

***Note:** Remember that to move up from the initial RIT, the initial IC shall request that a RIT Level 1 be dispatched as soon as a working structure fire is determined. In the event this is missed by the initial IC because of busy incident conditions, the first due command officer shall ensure that the RIT level 1 is dispatched if the an incident is determined to be a working structure fire. Also remember that if the initial IC immediately requests a second alarm, the initial IC will also need to request the RIT Level 1 resources in addition to the request for the second alarm assignment. (Also Request RIT Level 2 if it is determined to be needed or a Mayday is called.)*

RIT Level 1

A RIT Level 1 consists of one engine company and one special service apparatus, preferably a heavy rescue. These units are in addition to the units assigned to the initial box alarm and should be given priority in the dispatch sequence of any additional alarms. Once a working structure fire is confirmed by units on scene, this level shall be requested by the initial IC or the first due command officer to augment the Initial RIT.

***Note:** The requesting of the RIT Level 1 apparatus ensures safe staffing levels in the RIT assignment. In the NOVA region, there will be situations where the initial engine assigned to RIT may be staffed with three personnel, the driver may be at the pump panel covering the secondary water supply, or the size of the structure may not warrant a RIT Level II. Therefore, the use of a RIT Level I will augment the RIT and will increase the margin of safety. Although the RIT Level 1 is based on a working structure fire in this manual, a RIT Level 1 may be requested and added to any incident where additional RIT resources are desired.*

When the RIT Level 1 is dispatched, these units will arrive on the scene and augment the Initial RIT resource. The resulting RIT Level 1 resource is to be referred to as the RIT Group. The officer of the Initial RIT will become the RIT Group Supervisor. The RIT Group will operate as any other group within the ICS system, with the sole function of firefighter rescue. The RIT Group can request additional resources to augment their capabilities as needed through the IC.

RIT Level 2

RIT Level 2 consists of one engine company, one truck company, one heavy rescue company or a unit with heavy rescue capabilities, one battalion chief or command officer, and one ALS unit.

These units will arrive on the scene and augment the capabilities of the RIT Group if it has been established. If it has not yet been established, as is the case when going directly from Initial RIT to RIT Level 2, the units will arrive on the scene and augment the Initial RIT resource. The resulting RIT Level 2 resource is to be referred to as the RIT Group. The battalion chief or command officer dispatched with the RIT Level 2 will become the RIT Group Supervisor. The RIT Group will operate as any other group within the ICS system, with the sole function of firefighter rescue. The RIT Group can request additional resources to augment their capabilities as needed through the IC.

The need for a RIT Level 2 response is based on the IC's judgment of the incident conditions except in the case of a Mayday involving a lost or trapped firefighter, where it becomes mandatory. The purpose of the RIT Level 2 is to have an enhanced rescue capability available during significant and/or difficult fire ground incidents, prior to a lost/trapped firefighter event occurring.

Deteriorating conditions, large commercial building fires or other complex fire ground situations may warrant the request for this resource. The IC should consider requesting a RIT Level 2 in any of these situations or conditions:

- Significant fire in a large residential building (multiple floors, large square footage).
- Working fire in a commercial building.
- Working fire in a high-rise building.
- Prolonged burn time or rapid deterioration of conditions within the IDLH.
- Negative structural conditions to include any of the following:
 - Excessive weight on the roof.
 - Significant or unusual fire load.
 - Pre-existing damage to the building from fire, renovation or deterioration.
- Potential collapse indicators.
- Actual collapse occurs with crews operating in the IDLH.

RIT Level 3 – (Collapse Rescue)

The RIT Level 3 consists of at least two rescue companies or units with structural collapse rescue capabilities, a response unit with shoring capabilities, and support resources to include additional rescue tools, technical search equipment, and additional collapse rescue-trained staffing.

When the RIT Level 3 is dispatched, these units will arrive on the scene and augment the capabilities of the RIT Group. It is imperative a RIT Level 2 has already been requested for the incident to assure sufficient and correct resources are available to manage the collapse rescue problem.

Incident Commanders should consider requesting a greater alarm if a building collapse occurs, in order to maintain the fire attack and initiate immediate and prolonged rescue operations.

Initial RIT Planning

A primary job function of the Initial RIT is to take proactive measures to improve the safety of firefighters working inside of an IDLH.

- When this unit arrives on the scene they will announce their assignment of Initial RIT.
 - Initial RIT officer shall report to the Command Post and confer with the IC (unless the incident's size would make this impractical).
 - Confirm and track locations of all units working in the hazard zones.
 - Retrieve and review building preplan (if available).
- Take a strategic position based on type of structure and fire involvement.
 - Establish tool staging area for RIT tools.
 - The initial RIT tool cache shall minimally consist of but not limited to:
 - Hand-lights
 - Portable radios
 - Forcible entry hand tools
 - Tagline and/or search rope
 - RIT Air Supply
 - Additional SCBA(s), if a RIT Air Supply is not available
 - Thermal imaging camera
 - Pak Trackers, if available
- Plan where to acquire a protective hose line if needed for rescue.
- Perform a reconnaissance lap of the structure.
 - Assess emergency conditions and forecast potential rescue problems.
 - Determine all access points into the building including placement of ladders.
 - Determine most rapid access to units operating in hazard zone (including forced entry and wall breaching requirements).
 - Assess building construction features.
 - Provide command with updated situation report based on observations from the reconnaissance lap.
- Monitor tactical and safety channel(s) radio traffic.

The RIT Air Supply location shall be identified on all front line apparatus by the RIT Air Supply Sticker (identified in [Appendix C](#)). This sticker should designate the portable air supply for the RIT.

Proactive Tasks

Do not commit to any operation that will prevent you from maintaining readiness!

A primary job function of the Initial RIT is to take proactive measures to improve the safety of firefighters working in an IDLH. The Initial RIT will report to the IC to assure the following duties are achieved:

- Placement of ground ladders in strategic positions to support firefighter egress from the building.
- Placement of lighting at strategic building entry points to illuminate a point of egress.
- Force open exterior doors in the operational area to improve egress opportunities.

- Remove any window obstructions in the operational area such as bars, security screens, casement window frames, etc.
 - These tasks may require additional resources.
- Confirm utilities have been controlled.
- Perform ongoing evaluations of the incident.

Initial RIT Actions

The objectives of the Initial RIT, upon activation to a known Mayday situation, are to:

- Search for and locate lost/trapped firefighter.
- Remove the firefighter to a safe location if possible or provide an air supply to the trapped firefighter.
- Communicate with command on resource required to protect and rescue the trapped firefighter.

RIT Level 1 Planning

Report to and confer with the Initial RIT officer. These units will become the RIT Group under the supervision of the Initial RIT officer (unless otherwise determined).

- Develop and implement the Rescue Action Plan.

The plan should include protective hose lines and ventilation in areas where firefighters could become trapped. It should identify a primary rescue plan and optional rescue plans (such as a direct approach through existing openings or by breaching walls, floors, etc.)

Resources within the RIT Group can be assigned to tasks such as:

 - Reconnaissance (Recon) Team – to locate, supply air, and communicate rescue needs.
 - Rescue Team – to perform extrication and packaging.
 - Relief Crew – to assist as needed with support, extrication, and removal.
- Ensure the Initial RIT Planning actions have been completed.
 - The tool cache will be expanded to include:
 - Saws
 - Packaging devices
 - Additional tagline and/or search rope
- Deploy a protective hose line if needed for rescue.
- Assess supplied air availability.

RIT Level 1 Actions

Support objectives of the Initial RIT.

RIT Level 2 Planning

The RIT Level 2 should confer with the IC and the RIT Group. These resources will become a component of the RIT Group. The battalion chief on the RIT Level 2 assignment will then become the RIT Group Supervisor unless otherwise identified by the IC (i.e., the second chief on the initial alarm). The RIT Group Supervisor should review, further develop, and implement the rescue action plan, as well as ensure that previous level planning actions have been completed.

Assess the need for additional relief crews assigned to the RIT Group, and stage them outside the rescue area.

RIT Level 2 Actions

The following actions should also take place when activating a RIT Level 2 Group:

- Assignment of the Battalion Chief or a Command Officer as the RIT Group Supervisor.
- Assignment of a separate radio channel for RIT.
- Coordinate rescue operations with firefighting operations and other incident scene operations.
- Identify support needs and request additional resources from the IC.
- Identify or create access openings to the trapped firefighters.
- Develop capability to supply air to trapped firefighters from all jurisdictions involved, accounting for differences in SCBA equipment.
- Anticipate patient extrication requirements and assign tasks.
- Anticipate patient packaging and removal requirements and assign tasks.
- Assign ALS units, outside of the hazard zone, where most ALS interventions can take place.

RIT Level 3 – (Collapse Rescue) Planning

The RIT Level 3 Group should confer with the IC and existing RIT Group, assess, and further develop planning issues established during previous RIT planning efforts. The RIT Level 3 Group should review rescue action plans, further develop these plans, and implement building collapse action plans.

Building Collapse Action Plan

The building collapse action plan should include or consider the following elements:

- Maintain suppression control operations (if applicable).
- Perform hazard assessment:
 - Fire acceleration
 - Utility involvement
 - Secondary collapse potential
 - Hazardous materials involvement
- Implement hazard control requirements (utility control, shoring, monitor atmosphere, etc.)
- Assign units to assure adequate lighting in rescue area.

RIT Level 3 – (Collapse Rescue) Actions

- Assign Technical Rescue Group to be led by a technical rescue-qualified officer.
- Assign a Technical Rescue Safety Officer by technical rescue-qualified personnel.
- Consider an additional channel for RIT Level 3 logistical operations.
- Initiate operations to rescue surface victims and lightly-trapped victims.

- Expand search parameters established during previous RIT Levels:
 - Hailing system technique (call out into collapse area, triangulation of sounds).
 - Technical search devices (acoustic listening devices, visual search cameras).
 - Initiate operations to search accessible void spaces.
- Identify support requirements and request resources from IC.
- Initiate operations to perform heavy rescue requirements.
 - Breaching
 - Lifting
 - Specific debris removal
 - General rubble clearance
 - Utilization of heavy equipment
- Maintain a RIT capability while rescue operations are performed.
- Consider physician response to the scene.

RAPID INTERVENTION TEAM RECON/RESCUE/RELIEF PROCEDURES

It has been consistently proven across the country that the rescue of a single downed firefighter takes multiple resources and personnel. Case studies have shown that it takes a minimum of twelve personnel to affect a rescue. The tiered approach – RIT Recon, RIT Rescue, and RIT Relief – outlines the responsibilities of the RIT Group.

RIT Recon Procedures

Once activated the RIT Recon should deploy to last known location of the downed firefighter. It is the RIT Recon's responsibility to locate, provide air, and secure a tag line in the area near the downed firefighter. **RIT Recon should not overload themselves with excessive tools and equipment.** Once the downed firefighter is located, air has been secured, and a tag line is place, the RIT Recon should determine any additional resources needed (additional RITs, tools, and/or equipment). The RIT Recon should begin packaging the downed firefighter and begin the removal process, if possible.

RIT Rescue Procedures

Once the RIT Recon has located the lost, trapped, and/or injured firefighter(s) it is imperative that they report the following to the RIT Group Supervisor: the location in the building, disposition of the firefighter, best access to the location, their crew disposition, and what resources will be required for extraction. If the RIT Recon can safely remove the firefighter to either a safe haven in the structure or from the building with minimal effort, this should be done.

Every rescue situation will be different and many factors play a role into determining the best tactics to employ during the rescue event. These include and are not limited to: time, weather, location, building construction, level of entrapment/engulfment, nature of injuries, air consumption, and extent of fire spread. It is the responsibility of the RIT Group Supervisor to take this information into account when forming and adjusting the rescue action plan. Initially the RIT Group Supervisor should ensure that an adequate air supply and a hose line, if applicable, are deployed to the known location. Once it is determined that additional resources will be required for removal, the RIT Group Supervisor should request those resources not readily available through command.

The RIT Group Supervisor should deploy teams composed of a minimum of three personnel. The teams should be mindful of their assigned task as well as maintaining the Rule of Air Management (ROAM). All personnel will use the Rule of 1/3 during all operations as a minimum (see example).

Example:

- Rule of 1/3
 - 4500 psi to 3000 psi: entry, locate, and work
 - 3000 psi to 1500 psi: exit
 - 1500 psi and below: safety margin

The best practice is to use an air management system based on individual firefighter consumption rates (see example). This will ensure that personnel are exiting the structure prior to the activation of the low air alarm and ensure there are no additional Maydays, injuries, or overexertion. This standard is defined in NFPA 1404 and should be tracked by the RIT Group Supervisor or Aide.

Example:

- Individual Air Management:
 - Firefighter X knows that his/her 4500 psi SCBA will last 22 minutes during exertion before the low air alarm activates.
 - It requires Firefighter X 8 minutes to reach the work location.
 - Firefighter X will require 8 minutes to exit the structure.
 - Firefighter X can only operate in the IDLH for 6 minutes.

Rescue and removal is the responsibility of the RIT Rescue. Upon receiving information from the RIT Recon and the development of a rescue action plan, the RIT Rescue should gather any tools and equipment required to affect the rescue. The RIT Rescue should deploy to the location of the downed firefighter in the most expedient manner, if additional resources are required, the team leader should notify the RIT Group Supervisor. It should be noted that if there is more than one firefighter in distress, additional rescue teams will be required.

Relief Procedures

Studies show, on average, it takes 8 minutes to locate a lost or downed firefighter and an additional 22 minutes to remove that firefighter. With these averages and ROAM in mind, the RIT Group Supervisor must ensure adequate relief crews are available to support the rescue action plan. The supervisor should coordinate through command, well in advance, the anticipated number of relief personnel required to perform these operations. Command should reassign crews or request additional resources as soon as possible to support this function. Crews responding or assigned to the RIT Group should communicate directly with the RIT Group Supervisor.

FIREFIGHTERS/OFFICERS/UNIT RESPONSIBILITIES OPERATING ON THE INCIDENT SCENE

This section is intended to address the expectations of all units on the incident scene during RIT situations.

- Maintain radio discipline.
 - Communicate emergency traffic only.
- Ensure accountability of your crew.
- Prepare for a PAR.
- Continue with current assignment:
 - Search immediate area for missing or downed firefighter.
 - Face-to-face communication with other units operating in the immediate vicinity.

EMERGENCY COMMUNICATIONS CENTER RESPONSIBILITIES

The following section shall be forwarded to each jurisdiction's emergency communications center to assist dispatchers with managing the communication portion of a Mayday event.

Dispatch Procedures

- Dispatch RIT Level 1 when requested by the initial Incident Commander or responding/on-scene command officer.
 - It is recommended that this dispatch take precedence over any additional alarms (unless specified otherwise by the IC) to ensure RIT resources arrive in a timely manner.
- Units shall be identified upon dispatch as their assigned RIT Levels (e.g., "E407 and R407 respond as the RIT Level 1 to 123 Main Street...")
- Advise the IC that a RIT Level 1 has been dispatched.
- Maintain radio discipline.

Dispatch Procedures Following a Mayday

- Ensure the IC acknowledged the Mayday call.
 - Advise the IC of the Mayday if necessary.
- If the dispatcher receives a Mayday from an individual not operating on the assigned incident channel/zone.
 - Gather LUNAR/UCAN information from the firefighter.
 - **Do not have firefighters attempt to switch channels!**
 - Contact the jurisdiction and/or incident commander in which the incident is occurring and provide the above information.
 - Maintain open communication with the firefighter calling the Mayday and jurisdictions operating at the incident.
- Dispatch RIT Level 2 when requested by the initial incident commander or responding command officer.
 - This dispatch will take precedence over any additional alarms.
- Advise the incident commander that a RIT Level 2 has been dispatched.
- Maintain radio discipline.
- Assign a dispatcher to closely monitor all radio traffic on the tactical channel.
- Notify surrounding jurisdictions involved in the incident of the event.
- Do not initiate operational responsibilities until directed by the IC (i.e., Emergency Evacuation tones, RIT Deployment tones, etc.)

APPENDIX A: LOST/TRAPPED FIREFIGHTER COMMAND CHECKLIST

Initial Command Actions	
	Acknowledge Mayday
	Deploy RIT
	Incident scene announcement
	Emergency traffic only
	All personnel maintain positions/assignments
	Confirm information from downed firefighter
	Accountability of crew
	Ensure minimum of a RIT Level 2 is dispatched
	Initiate a PAR check
Additional Command Considerations	
	Ensure RIT is backfilled
	Consider using additional radio channels for RIT Operations
	Development of a rescue action plan
	High priority on search and rescue
	Consider/request additional resources (Fire/EMS)
	Withdraw/control unassigned resources from search area
	Control/restrict access
	Consider the need for a staff officer for notification to family members

APPENDIX B: RIT GROUP SUPERVISOR COMMAND BOARD

Fire and Rescue Departments of Northern Virginia Rapid Intervention Team Operations

<u>RIT CHANNEL</u>	<u>COMMAND CHANNEL</u>	<u>OPERATIONS CHANNEL</u>	RIT GROUP SUPERVISOR
<u>INITIAL RIT EQUIPMENT LIST</u>		<u>LEVEL 1 RIT EQUIPMENT</u>	
TIC	FORCIBLE ENTRY TOOLS	STOKES BASKET	SEARCH ROPE
SEARCH ROPE/ TAGLINE	SAWS	BELOW GRADE RESCUE KIT	HOSE LINE
RIT AIR SUPPLY		RIT AIR SUPPLY	SUPPLIED AIR
		<u>LEVEL 2 RIT EQUIPMENT</u>	
		LIFTING	
		BREACHING	
		PUSHING/ PULLING	
CHECK IN WITH IC/ OPERATIONS			
1. FIRE SITUATION OFFENSIVE / DEFENSIVE		3. IC'S CONCERNS _____	
2. CONFIRM UNIT LOCATIONS		4. EQUIPMENT STAGING LOCATION (S) _____	
PERFORM RAPID SIZE-UP OF SCENE AND FIREGROUND OPS			
MONITOR RADIO OCCUPANCY & CONSTRUCTION LOCATION OF FIRE PREDICTED PATH IDENTIFY ACCESS & EGRESS REPOSITION/ ADDITIONAL LADDERS REMOVE BARS & BARRIERS		ASSIST WITH DEPLOYING HANDLINES ASSIST WITH OUTSIDE VENTILATION REMOVE BARS & BARRIERS CONSIDER LIGHTING NEEDS FORCAST RESCUE PROBLEM	STAFF RIT ATTACK LINE
MAYDAY INITIATED			
CONFIRM MAYDAY (ID PROBLEM= LOW AIR, COLLAPSE, LOST, ETC.) LOCATION OF MAYDAY _____ UNIT WITH MAYDAY _____ NAME OF MEMBER(S) _____ AIR STATUS OF MEMBER(S) _____ RESOURCES NEEDED _____ DEPLOY RIT			NOTES

Figure 1: RIT Command Board Front

Fire and Rescue Departments of Northern Virginia Rapid Intervention Team Operations

Downed Firefighter	AIR MANAGEMENT						
<input type="checkbox"/> ID TRAPPED LOCATION <input type="checkbox"/> CONDITIONS (fire, collapse, entanglement) <input type="checkbox"/> AIR STATUS <input type="checkbox"/> NEEDS (lifting, cutting, breaching, etc.)	RIT CHIEF NAME	ENTRY POINT (SECTOR, DOOR, STAIRWELL, ETC.)	DEPLOY TIME	5 MIN ✓ AIR ✓	10 MIN ✓ AIR ✓	20 MIN ✓ AIR ✓	EXIT TIME & ROLL CALL
	RIT 1						
	RIT UNITS						
	RIT 2						
	RIT UNITS						
	RIT 3						
	RIT UNITS						
Assigned	Unassigned	BUILDING SKETCH AND NOTES					

Figure 2: RIT Command Board Back

APPENDIX C: RIT AIR SUPPLY REGIONAL IDENTIFICATION STICKER

The following is an example of the sticker that is to be placed on all front line apparatus within the NOVA Region that carry a RIT Air Supply. The specific requirements for this sticker are as follows:

- Made of reflective material
- Primary color should be green
- “RIT” must be in bold lettering
- Minimum size of 3.5” by 3.5”



Figure 3: RIT Regional Identification Sticker