

The Three Degrees of Mayday

A discussion of the three levels of response to fireground Mayday situations of varying complexity.

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A New Perspective

Handling a "Mayday" situation is as difficult an assignment as any of us will ever receive at a structural fire.

Now ask yourself some questions;

- Will the response to a "Mayday" call be the same for every "Mayday"?
- Aren't "Mayday" situations similar to fire situations in that we use different tactics and personnel for different fires?

A New Perspective

Questions continued;

- Would the RIT assigned to locate and remove a single missing firefighter contain the same number of members with the same equipment as a RIT deployed to rescue 3 firefighters trapped under a collapsed burning building?
- The obvious answer is NO!
- This is the basis for developing a multi-level "Mayday" response by Rapid Intervention Teams.

Transmitting / Responding to a Mayday

- **To be clear;** The information provided in this presentation is designed to enhance and improve the performance of the Rapid Intervention Team (RIT). It has no bearing or effect on the transmitting of the "Mayday".
- The firefighter transmitting the "Mayday" continues to simply provide the basic "Mayday" info to the IC .
- The IC must have already determined what level RIT response is necessary for the reported situation. This also includes the calling for specialized equipment/agencies if necessary.

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-(Ladder 38 RIT)
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Calling the Mayday

A "Mayday" can be called by any firefighter for any condition that threatens to seriously injure or kill a firefighter/s.

These situations can include;

Calling the Mayday

1. Structural collapse has occurred / is imminent
2. Unconscious firefighter
3. Firefighter seriously injured
4. You are lost or another firefighter is lost
5. Firefighter missing / your partner is missing
6. A firefighter is down (unknown condition)
7. A firefighter is out of air

Calling the Mayday (cont.)

8. A firefighter is entangled in an IDLH
9. A ceiling has collapsed on a firefighter(s)
10. A room has flashed over with firefighters inside
11. An entire building has collapsed on numerous firefighters
12. Any other condition or situation that can kill or seriously injure operating firefighters.

15 TRIGGER Phrases for MAYDAYs (Don Abbott, projectmayday.net)

1. We have fire above our heads.
2. We have zero visibility conditions.
3. We are running out of air.
4. We have not found the seat of the fire.
5. We have fire below us.

15 TRIGGER Phrases for MAYDAYs (cont.)

6. We have a lot of sprinkler heads going off in here.
7. We have a hole/collapse floor.
8. This is a hoarder house.
9. We have had a flashover.
10. We have had a ceiling/roof collapse.

15 TRIGGER Phrases for MAYDAYs (cont.)

11. It's getting hot in here, we are backing out.
12. Interior, we are sending a FF out with a problem.
13. We need more line, extend our line.
14. We have lost multiple windows.
15. Our exit has been blocked.

Mayday, Mayday, Mayday

- When a firefighter, company officer or chief decides to transmit the "Mayday" they are calling for help.
- Is there any other way to call for help, while operating inside or at a structural fire operation, **without** calling a "Mayday"?

Calling For Help

To call for help you can;

1. Transmit that message on the portable radio.
2. Activate the "distress" button on the portable radio. ●
3. Activate the PASS alarm.

So there are three ways of calling for help other than the "Mayday" on the portable radio.

Mayday Definition

- The international radiotelephone distress signal, used by ships and aircraft.
- Mayday is used as a distress signal because it approximates the French term m'aider, meaning "come help me".
- The call is always given *three* times in a row to prevent its being mistaken for some similar sounding phrase under noisy conditions, and to distinguish an actual Mayday call from a message about a Mayday call.

Mayday, Mayday, Mayday

There is a building collapse at a structural fire operation. You discover a badly injured, unconscious firefighter in the street.

Transmit the "Mayday"



Mayday, Mayday, Mayday

- Firefighter- "Mayday, Mayday, Mayday"
- Command- "Unit with the Mayday go ahead"
- Firefighter- "This is Ladder 11 Roof, I'm on the roof and a firefighter has fallen through the roof"

This is the "Who, What, Where" Mayday message

LUNAR

What's wrong with LUNAR?

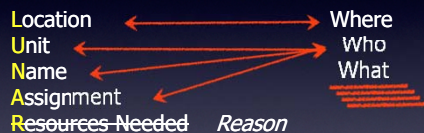
- L - Location
- U - Unit
- N - Name
- A - Assignment
- R - Resources Needed

WHAT IS MISSING?

What's Missing?

LUNAR

Who, What, Where



LUNAR does NOT include the Emergency condition!

What is the problem?

Why was the Mayday transmitted?

Do you want to know more?

- Yes, which is the most important aspect of the Who, What, Where concept?
- If more info is required, the IC should be the one that has to remember it or read it off a checklist.
- Not the distressed member! Not the firefighter who is panicked or injured or out of air!

MAYDAY	MAYDAY	MAYDAY
<div> <div> UNKNOWN COMPANY / MEMBER MISSING ____ Announce Emergency Traffic ____ Declare a MAYDAY ____ PAR -> Interior Companies First (Dispatch to Verify Companies On Scene / Enroute via CAD Log) ____ What Company(s) / Member(s) are Missing, Lost or Trapped? ____ How Many Firefighter(s) are in the Missing Company(s)? ____ Announce Who is Missing ____ Where was the Firefighter(s) Last-Known Location / Assignment? ____ Assign the RIT (Remind All of Radio Discipline) ____ Call for Next Greater Alarm Level (Get Enough HELP to the Scene) (Can Interior Companies Hold Their Position?) ____ Request Additional EMS / Ambulance(s) ____ Building / Fire Conditions (Collapse Potential?) ____ Assign a Rescue Sector Officer (Remind All of Radio Discipline) (Build a "Think Tank" for Command) ____ Assign Companies to Assist in RIT SUPPORT (Also Consider Additional RIT Teams) ____ Conduct PAR of ALL Companies to Confirm Number of Missing ____ RETURNING TO NORMALCY ____ PAR ____ Reestablish a Plan of Attack for the Original Fire ____ Assess the Need for Additional Companies ____ Need for CISM? </div> <div> MISSING COMPANY / MEMBER IDENTIFIED ____ Announce Emergency Traffic ____ Declare a MAYDAY ____ PAR -> Interior Companies First (Dispatch to Verify Companies On Scene / Enroute via CAD Log) ____ What Company(s) / Member(s) are Missing, Lost or Trapped? ____ How Many Firefighter(s) are in the Missing Company(s)? ____ Announce Who is Missing ____ Where was the Firefighter(s) Last-Known Location / Assignment? ____ Assign the RIT (Remind All of Radio Discipline) ____ Call for Next Greater Alarm Level (Get Enough HELP to the Scene) (Can Interior Companies Hold Their Position?) ____ Request Additional EMS / Ambulance(s) ____ Building / Fire Conditions (Collapse Potential?) ____ Assign a Rescue Sector Officer (Remind All of Radio Discipline) (Build a "Think Tank" for Command) ____ Assign Companies to Assist in RIT SUPPORT (Also Consider Additional RIT Teams) ____ Conduct PAR of ALL Companies to Confirm Number of Missing ____ RETURNING TO NORMALCY ____ PAR ____ Reestablish a Plan of Attack for the Original Fire ____ Assess the Need for Additional Companies ____ Need for CISM? </div> </div>		
<p style="text-align: right;"><i>Command Post MAYDAY Checklist</i></p>		
MAYDAY	MAYDAY	MAYDAY

20

Deploying the RIT

- Who deploys the RIT?
- The RIT is deployed by the IC for any condition that they determine could cause serious injury or death to any firefighter/s.
- Who else can cause the deployment of the RIT?



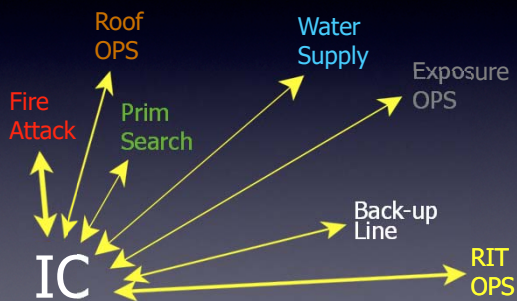
RIT Communications

- **Typical Structural Fire** - All units on primary tactical or fireground channel.
- **Mayday at Structural Fire** - Some chiefs want to isolate the "Mayday Firefighter" and the RIT from the other on-scene firefighters.

Why?

Typical Structural Fire

Single Tactical Radio Communications Network



Changing Channels for RIT

Distressed firefighters are rescued by;

- Another interior crew - 39%
- Their crew - 31%
- Themselves - 18%
- RIT - 12%

So 70% of FFs that transmit a **Mayday** are rescued by FFs **other than the RIT!**

Do we really want them all on another channel?

Changing Channels for RIT

Changing channels after Mayday has been called results in the following *negative* conditions;

- ★ Divides the fireground into two separate incidents.
- ★ Separates the RIT and downed FF from other interior crews.
- ★ The RIT cannot hear any other hazardous conditions that develop in the building.
- ★ The RIT cannot call for help from interior crews nearby.
- ★ How many channels can your initial IC handle simultaneously?
- ★ How many chiefs are on-scene in the first 7-9 minutes?

RIT Radio Designations

- When the RIT is deployed into the fire operation, the term RIT can simply be added to the units standard identity.
- **Ladder 6 is on-scene, and designated as RIT**
- When they go to work for a Mayday, "**RIT**" is simply added to their standard ID (**Ladder 6**) which is now "**Ladder 6 RIT**"

RIT Radio Designations

Q- Why do we call them "**Ladder 6 RIT**" and not simply "**RIT**" or "**RIT UNIT**" ?

- They will recognize and answer to Ladder 6, it is who they are.
- Allows other units to recognize Ladder 6 as RIT.
- It adds the important RIT assignment to their unit identity.
- We may deploy a second RIT team for a subsequent Mayday, and we don't need to call them RIT 2 etc.
- Allow all units to continue operating on single tactical channel.

The previous 12 Mayday situations can be divided into three levels or degrees of difficulty;

I - Single firefighter emergency

II - Several firefighters or physical condition

III - Numerous firefighters or catastrophic conditions

RIT Level 1

Single Firefighter RIT Operation;



RIT Level 1

This is a single firefighter emergency or situation. These are by far the most common RIT operations. Often it is a single firefighter that is disoriented, out of air, trapped, tangled, hurt or otherwise. This single firefighter RIT operation may be the most simple to successfully complete.

RIT Level 1

Single Firefighter RIT Operation;

- The RIT needs to find **ONE** firefighter.
- This firefighter will be found in **ONE** location.
- A RIT pack will provide air to **ONE** Firefighter immediately.
- A small RIT (2-3) members should be able to package and begin transport **ONE** firefighter.

RIT Level 1

Single Firefighter RIT Operation;

"Mayday, Mayday, Mayday -
Ladder 11 irons, I'm lost, I'm
lost!"

LADDER 11 WHERE ARE YOU?

"I don't know, I can't find my
officer!"

**LADDER 58 RIT, DEPLOY TO
2nd FLOOR FOR LOST FF!**



RIT Level 1

Single Firefighter RIT Operation;



This is a basic, single FF
RIT operation that can be
handled with;

- ★ A single RIT (3-4
members)
- ★ Basic RIT tactics
- ★ One search rope
- ★ One RIT pack
- ★ One sked, stokes etc.
- ★ One EMS unit

What should outside crews be doing?

- Is there an OVM?
- Throw ladders
- Is EMS on the scene?
- Continue to fight the fire!
- Continue to search!
- Continue to ventilate!



RIT Level 1

Single Firefighter RIT Operation;



This RIT operation can and should be handled by the IC or their designee with moderate disruption of the firefighting operation. This is where real "Command" is required. A request for additional resources may be required but will probably not be overwhelming.

Mayday Resource / Personnel SOG

		Effective Date: 06/23/10
		Approval: _____
<p>LEWISVILLE FIRE DEPARTMENT STANDARD OPERATING PROCEDURES</p>		
SECTION:	OPERATIONS	
TOPIC:	SIGNAL 99	
REFERENCE:	2.19	
<p>I. PURPOSE</p>		
A.	To minimize radio communications between an Incident Commander and the Communications Center when a MAYDAY is transmitted on an incident scene.	
<p>II. POLICY</p>		
A.	If a MAYDAY is transmitted on an incident scene it is imperative that radio discipline is maintained to ensure communication with the personnel that transmitted the MAYDAY. The phrase "SIGNAL 99" will be used by the Incident Commander to alert the Communications Center that the incident scene has an emergency involving emergency response personnel. If a SIGNAL 99 is transmitted the following actions should be taken by the Communications Center.	

Mayday Resource / Personnel SOG

III. PROCEDURE

- A. Increase alarm assignment to next level. Example: 1 Alarm to 2nd Alarm, 2nd Alarm to 3rd Alarm, etc.
- B. Dispatch an additional three Medic Units to the scene. These units should be comprised of the balance of our available Medic Units, followed by CAD recommended mutual aid Medic Units.
Note: All attempts should be made to use the closest Medic Units.
- C. Dispatch an additional Truck Company to ensure that there are a total of three Truck Companies on the scene. Two of the three will most likely be from Lewisville and Coppell, the third should be the next closest to the incident. The following agencies have dedicated Truck Companies: Flower Mound, Grapevine, Carrollton, The Colony, Denton, or Plano.
- D. Dispatch an additional Air and Light Unit from Flower Mound or Carrollton, whichever is closest to the incident location.
- E. Ensure that there are three additional Chief Officers responding to the incident. These could be the remainder of the Lewisville Chief Officers or from Flower Mound, Coppell, Grapevine, Highland Village, Lake Cities, The Colony, Carrollton or Denton.

IV. SPECIAL CONSIDERATION

- A. Contact Incident Command and ascertain if a building collapse or partial collapse has occurred. If yes, request Coppell's Heavy Rescue Unit along with Lake Cities Heavy Rescue Unit.

RIT Level 2

Several Firefighter RIT Operation;



RIT Level 2

Several Firefighter RIT Operation;

"Mayday, Mayday, Mayday"

UNIT WITH THE MAYDAY, GO AHEAD

"Engine 26, we lost water, we're burning up..."

Engine 26 WHERE ARE YOU?

"Second floor rear, give me water, give me water!"

LADDER 2 RIT, DEPLOY TO 2nd FLOOR FOR Engine 26!



Engine 26, staffed with 4 FFs transmits a Mayday from 2nd floor

RIT Level 2

Several Firefighter RIT Operation;

Q- Should the 3 FF RIT stretch a line as they deploy to 2nd floor?

Q- Is there another line in the building already that can assist?

Q- Can you see the benefit of NOT changing channels at this point?

Q- What additional resources can the IC request at this point from the dispatcher?

Q- What additional equip will be needed above what was used for a single FF RIT?



RIT Level 2

Several Firefighter RIT Operation;

This RIT operation will have to be enhanced to cover the larger number of firefighters in distress that may have to be rescued.

For Example:

- RIT Team numbers increased.
- Several RIT packs.
- Multiple Stokes baskets required.
- Larger EMS assignment.
- Chief Officer assigned.



RIT Level 3

Numerous FF / Catastrophic Conditions RIT Operation;



RIT Level 3

Numerous FF / Catastrophic Conditions RIT Operation;

- ★ Large commercial building
- ★ 2 handlines working inside
- ★ Truck crew on the roof
- ★ Search team inside

Then.....

MAJOR ROOF COLLAPSE



RIT Level 3

Numerous FF / Catastrophic Conditions RIT Operation;

- Q- How many FFs need to be rescued/removed?
- Q- Will one RIT be enough?
- Q- #FF on RIT?
- Q- EMS resources needed?
- Q- Heavy equip needed?
- Q- Add'l chiefs needed?
- Q- Add'l alarms?
- Q- Transmit MAYDAY?
- Q- Conduct PAR?



RIT Level 3

Numerous FF / Catastrophic Conditions RIT Operation;



Question -Can this RIT operation be handled the same way as a single FF or 2-3 FF's in trouble inside a burning building?

Answer - NO

Returning to Normalcy

- After the firefighter rescue, Command should conduct another PAR.
- After the PAR, reestablish a plan of attack for the original fire.
- As soon as you can, send additional crews to the scene for relief and reassign on-scene crews to the necessary assignments.

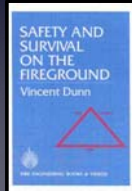
Returning to Normalcy

- As soon as relief comes, consider getting the original on-scene crews to a debriefing. They should be required to leave the scene.
- Consider support sectors such as a public information officer to handle the media and chaplain to handle critical incident stress management (CISM).

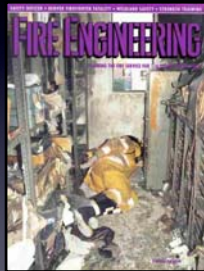
- Training in incident management, rapid intervention, and rescue techniques obviously is just a start.
- Take time to review past incidents, and look at what got you in trouble.
- Talk about it!
- Prepare for it!

"In order for a firefighter to survive the dangers of firefighting, he must know how other firefighters have been killed or seriously injured."

Vincent Dunn, Deputy Chief (ret)
FDNY



The Line-Of-Duty-Death Book Report Drill





- NIOSH - National Institute for Occupational Safety and Health
- www.cdc.gov/niosh/fire



- The National Near Miss Program
 - www.nationalnearmiss.org

- Determine your resources and develop your own lost/trapped firefighter policy.
- How well command manages the MAYDAY and how well on-scene crews interact with one another, will determine the success or failure of the toughest type of incident we will ever fight.

The more we sweat in
training, the less we
bleed in the battle!

Train, Train, Train!!

Be safe!!

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