



**Williamson County Fire Chiefs Association
Capitol Area Fire Chiefs Association
Central Texas Regional Procedures**



#4

**MAYDAY – RAPID INTERVENTION
Standard Operating Guideline**

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PURPOSE

To establish a coordinated and regional approach to management of a Mayday and Rapid Intervention.

BACKGROUND

Each year the fire service experiences several firefighter deaths, resulting from firefighters becoming lost and/or trapped while working inside of structure fires. Many Fire Departments have experienced several close calls where firefighters have rescued fellow firefighters. Some of these rescues were performed by Rapid Intervention Crews/Companies (RIC) and others were performed by firefighters who were “close by” the Mayday firefighter.

The best way to manage a Mayday incident is to operate in a manner that eliminates them from occurring in the first place by doing the following:

1. Operating in the correct strategy.
2. Following all SOP's.
3. Having all initial and subsequent alarms dispatched with enough resources to:
 - Assign all key tactical positions as early as possible,
 - Control the problem,
 - Put water on the fire as safely and as quickly as possible,
 - Manage air supplies so that all members exit the IDLH with an adequate air reserve.
 - Manage the work rest cycle,
 - Maintain a tactical reserve,
 - Support the Incident Commander as required.

The Capitol Area Fire Chiefs Association (CAFCA) and the Williamson County Fire Chiefs Association (WCFA) have developed a standard “RIC” approach to be used during all automatic aid responses to structure fires. Fire departments throughout Williamson and Travis County have adopted Standard Operating Guidelines (SOGs) which require that a backup line, normally assumed by the second arriving apparatus on scene, and a “2-in / 2-out” Outside Team are in place to ensure that firefighters will be close by to recognize and assist with a rapid firefighter rescue, should the need arise.

Although the outside and backup team provide an elevated level of firefighter safety, they are not designed to adequately address the needs of a lost or trapped firefighter. To address this need, this guideline assigns a RIC at all structure fires. The idea is to ensure that there is a designated team whose only job is to perform or support the rescue.

MAYDAY

- A. The following situations require the immediate initiation of a Mayday call:
1. Separated from Crew / “Lost” (Firefighter Missing).
 2. SCBA Malfunction and/or low air alarm activation in an IDLH and unable to reach an exit safely.
 3. Injured and/or disabled.
 4. Trapped, pinned, and/or entangled in debris.
 5. Any life-threatening condition that cannot be resolved in 30 seconds.

Declaring a Mayday

- A. A firefighter that determines the need for immediate assistance should declare a Mayday by taking the following steps:
1. Press the Emergency ID button, if possible,
 - a. While pressing the emergency ID button automatically keys the mic, holding down the push to talk button allows transmission beyond the set 8-10 second open mic setting.
 2. Announce over the assigned tactical channel “Mayday–Mayday–Mayday” followed by
 - a. Who – Name(s) and Unit assignment,
 - b. What – What the problem is and what help is required,
 - c. Where – Location or last known location.
 3. If no response is received the firefighter should repeat the Mayday call.

Radio Emergency Identification

- A. Radios in both counties have an emergency ID button. When activated, the radio will automatically transmit with a “hot microphone” for eight to ten seconds. Radios will remain on the current channel when activated and continue to transmit on the selected tactical channel, preempting all other transmission except from the dispatch center. When an emergency ID activation is received by a dispatch center, the Incident Commander and/or Company Officer will be notified as required by department policy. Emergency ID activations that occur on a channel not being monitored by the home dispatch will not be received.

RAPID INTERVENTION PREPARATION

- A. Command will establish and maintain a Rapid Intervention Crew/Company at potentially hazardous incidents through the stabilization phase. If there is a Mayday event, this Company will be immediately available to assist in the rescue effort.

Command

- A. Command responsibilities follow the assumption that an Outside Team has been established as part of the 2-in/2-out rule by the first arriving companies. Following the arrival of additional companies, Command will be responsible for the following:
1. Designate a Rapid Intervention Crew (RIC) at every event in which a crew enters an IDLH atmosphere. Command will advise by radio which company is designated as the RIC. A potentially hazardous incident includes any of the following:
 - a. Working structure fire.

- b. Any incident having significant risk of entrapment or injury to firefighters. This includes defensive fires where potential for collapse exists.
 - c. Any incident where firefighters enter an IDLH atmosphere.
2. Command will assume all Incident Safety Officer (ISO) responsibilities until an ISO is assigned.
3. Once additional resources arrive on scene, Command should increase staffing of the RIC to at least three or four members.
4. Once established, RIC will remain in place at least until the fire is under control. After this benchmark is achieved, the risks to firefighters should then be carefully assessed. Command will announce when it is deemed safe to deactivate RIC.

Rapid Intervention Crew/Company

- A. At a minimum, the RIC will be comprised of two fully equipped responders who are on site and assigned specifically to initiate the immediate rescue of injured, lost, or trapped responders. [NFPA 1561] However, for an increased level of firefighter safety, a complete company of three or four members with the following minimum equipment should be assigned, when possible, from the first alarm complement.
 1. RIC Pack with universal SCBA fitting
 2. Dry Hoseline
 3. Hand tools
 4. Rope/Webbing
 5. Flashlights
 6. Pike Pole or hook
 7. Radios
 8. Thermal Imaging Camera
- B. The Rapid Intervention Company should:
 1. Obtain the RIC equipment, deploy a dry hose line or identify an existing hoseline that can be used and then report to Command that RIC has been established and it's location.
 2. Assume the outside team responsibilities in accordance with the Two-In / Two-Out rule.
 3. Monitor the designated fireground channel for emergency communications.
 4. Monitor the fireground for firefighter safety and perform proactive functions to reduce risk to firefighters.
- C. At structure fires, if the fire is quickly knocked down by one fire attack hose line and the backup team is in place outside the IDLH atmosphere, the backup team may serve as the RIC.
- D. The Rapid Intervention Crew/Company Officer should:
 1. Normally be the Company Officer of the crew assigned to the RIC function.
 2. Report to and work with the assigned Division Supervisor (normally the Outside Division) once established.
 3. The RIC Officer is responsible for:
 - a. Obtaining a briefing from the Division Supervisor or Command/Operations.
 - b. Obtaining the RIC equipment.
 - c. Checking with the Outside Team Monitor to determine what companies, their location and how many firefighters are inside the IDLH.

- d. Confirming that the fire ground radio channel is being monitored by the RIC members.
- e. Determining which engine(s) could supply the RIC fire flow needs if the RIC is deployed.

Division/Group Supervisor Responsible for RIC

- A. The Supervisor (normally the Outside Division) is responsible for:
 1. Ensuring that RIC has been assigned and the RIC functions are being properly addressed.
 2. Ensuring that the RIC remains available until deactivated by Command.
 3. Ensuring that personnel perform appropriate softening of the structure, and work with the RIC, sizing up the structure for potential firefighter rescue needs. Softening refers to proactive functions such as forcible entry/exit, laddering the building, etc.
 4. Requesting from Command additional resources when establishment of a Rapid Intervention Group is appropriate.
 5. Ensuring that the designated RIC shall not be assigned other fire ground duties not related to the RIC function.
 6. Monitoring fire ground radio traffic to note any changing conditions that may lead to a Mayday event.

RIC Water Supply Pump Operator(s)

- A. Pump Operator(s) identified as potential RIC water supplies are responsible for:
 1. Obtaining an adequate water supply for the RIC fire flow needs.
 2. Ensuring that the apparatus water tank is full and the pump is engaged.
 3. Monitoring the fire ground radio channel.

RAPID INTERVENTION OPERATIONS

Firefighter Rescue

- A. Mayday studies and national statistics show that the two most significant actions a firefighter can take when encountering a Mayday situation are:
 1. Transmitting a Mayday call over the primary fireground channel, and
 2. Activating their PASS device.
- B. This is because approximately 90% of Maydays are resolved by an “Inside-out rescue”:
 1. The firefighter having the Mayday performs self-rescue.
 2. The firefighter’s own crew members perform the rescue.
 3. Another company operating in the vicinity performs the rescue.
- C. Less than 10% of documented firefighter rescues involved a RIC acting as the primary members performing the rescue.
- D. Based on this research, actions taken to rescue a firefighter transmitting a Mayday should be performed in the following order:
 1. Communicating to a lost firefighter self-rescue techniques to assist with their own rescue.
 2. Using a Mayday firefighter(s) own company to assist with the rescue.
 3. Using a company already located inside of the IDLH to assist with the rescue.
 4. Using the Rapid Intervention Crew located outside of the IDLH.

Command

- A. Prior to adjusting the IAP, deploying RIC or redeploying operating units, Command must first define the problem resulting in the declaration of a Mayday. This is accomplished by the following actions:
1. Using “Emergency Traffic” announce that a Mayday has been called.
 2. Ordering “Priority Radio Traffic Only” to limit noncritical radio transmissions.
 3. Receiving and confirming the “Who-What-Where” Mayday information from the member calling the Mayday. Then directing that member to activate their PASS and press their radio’s Emergency ID button if they have not done so already.
 4. Obtaining a situation report from affected Division/Group Supervisor or interior crews, if needed.
 5. Determine if interior crews (inside-out rescue) or RIC (outside-in rescue) is the best option to begin rescue efforts.
 6. Deploy resources to rescue the member who called the Mayday.
- B. Once the problem is defined, Command should modify the IAP to:
1. Ensure that firefighting operations continue. In some cases, the RIC could be used to extinguish or control the fire if it will directly contribute to the rescue effort.
 2. Call for a Mayday Taskforce and/or additional alarms as needed. A Mayday Taskforce consists of the following:
 - i. Engine,
 - ii. Aerial,
 - iii. Rescue,
 - iv. Chief Officer (Command Element),
 - v. Medic Unit,
 - vi. EMS Commander/Supervisor.
 3. When available, assign a single point of contact (Mayday Monitor) to communicate and coach the Mayday Firefighter through their self-survival procedures.
 4. Consider assigning a Fire Branch Director or an Operations Section Chief with primary responsibility of fire control operations.
 5. Consider assigning a Firefighter Rescue Group Supervisor and ensure that the Rescue Group has appropriate resources to sustain their operation.
 6. Consider assigning a Firefighter Rescue Branch Director to oversee the rescue operations from the command post.
 7. Reassign any essential functions vacated by crews needing rescue and/or the members involved in the rescue effort.
 8. Once the RIC is deployed, designate another RIC to standby.

Rescue Group Supervisor

- A. If RIC is deployed, and a Firefighter Rescue Group is established, the following actions should take place:
1. The Firefighter Rescue Group Supervisor should be designated by Command. The Group Supervisor’s primary role will be to direct the firefighter rescue effort.
 2. The Firefighter Rescue Group Supervisor will:
 - a. Confer with Command in defining the problem and developing the rescue action plan using the AWaRE system. (Refer to The AWaRE System Pg. 6-7)
 - b. Coordinate with the rescue crews a search plan to determine the best route to locate and remove the Mayday Firefighter(s).
 - c. Inform members of the Firefighter Rescue Group of the rescue plan.
 - d. Request from Command the resources necessary to support the rescue effort.

- i. Air Manager if needed.
- ii. Personnel required to sustain a prolonged rescue effort (crew rotations, weather extremes).
- iii. Specialized equipment or training (e.g. supplied air respirator cart, shoring and/or extrication).

RIC Officer

- A. If RIC is deployed, the RIC Officer should take the following actions:
 1. Confer with the Rescue Group Supervisor to ensure a clear understanding of the rescue action plan.
 2. Retain primary responsibility for air monitoring of their personnel.
 3. Coordinate the actions of their company with the actions of crews operating with them.
 4. Give timely status reports to the Group Supervisor (e.g. Conditions-Actions-Needs [C.A.N.] report).
 5. Monitor the overall status of their firefighters operating in the IDLH to prevent safety issues associated with fatigue.

Air Supply

- A. Managing air supplies is a major IAP consideration during firefighter rescue operations. This includes the air supply of the Mayday firefighter(s) as well as the air supplies of any other unit(s) assigned to the IDLH. Command must ensure that crews are exiting the IDLH with an adequate air reserve.

Personnel Accountability Report

- A. A modified “bottom up” PAR should be performed by units operating in the IDLH as soon as a Mayday is transmitted. Accountability reports should be made face-to-face up to the division/group level and only reported to Command on the radio if directly requested to. A traditional rollcall style PAR should be avoided during rescue operations due to the amount of radio traffic involved.

The A.W.a.R.E System

- A. Most firefighters have been trained to use the “grab and go” style of rescue. This may work well with civilian rescue but becomes more difficult when you add the weight of a firefighter’s gear, entanglements, or structural collapse entrapments. A system has been developed and proven to save the lives of firefighters. This system is given the acronym A.W.a.R.E. This stands for Air, Water, a Radio, and Extrication.
- B. The first two needs are the most important. First, provide the Mayday firefighter with a redundant (primary and secondary) air supply. Then create a defensible space with water, using hose lines. Meeting these two needs can buy several hours of extrication time. Ensure that the channel is monitored by a firefighter whose only responsibility is to monitor the downed/trapped firefighter. In extreme cases, where the downed/trapped firefighter must be left alone, leave air, water, and a functioning radio (this could happen if rescuers are running low on air and still not relieved by relief rescuers). Extrication is the final step, which may take only minutes or several hours.
- C. The strategic goal of the AWaRE system is to provide a survivable environment for as long as it takes to perform the rescue.

- D. The Rescue Group will use the “AWaRE” principle after locating the trapped firefighter(s) that cannot be removed by grab and go means:
1. Air Supply – Assure the firefighter(s) have an adequate air supply.
 2. Water – Create a defensible space by use of hose lines.
 3. a Radio – A radio to allow the Mayday firefighter to communicate conditions and needs. Ensure that there is a dedicated member (Mayday Monitor) actively listening to the assigned channel ready to respond at all times.
 4. Extrication – of the trapped individuals.

ENDING RAPID INTERVENTION OPERATIONS

Rescue to Recovery

- A. It is important to realize that not all rescue attempts will be successful. Command must be cognizant of the amount of time crews have been attempting a rescue. National statistics show that approximately one in eight members assigned to the rescue during an outside-in operation declare a separate Mayday. Command must continually evaluate the risk of continued rescue efforts as compared to a recovery operation. It is Command's duty to end rescue operations when that risk outweighs the chances of rescuing a live victim.

Rescue Successful

- A. Once all affected firefighters have been removed from the IDLH, Command must ensure that they are handed over to treatment and there are enough resources on-scene or responding to adequately treat and transport all of the injured firefighters.
- B. After all Mayday firefighters have been extricated from the structure, Command must reevaluate the IAP. Command should be very pessimistic about continuing to conduct offensive operations in a building that just hosted a Mayday.
- C. Resources available for suppression or overhaul activities must be balanced with the resources required to treat and transport all affected firefighters.
- D. The suitability of personnel to continue to work in IDLH atmospheres will be directly impacted by the severity of the Mayday. Company and Command Officers must evaluate the mental and physical wellness of any deployed member working on the Mayday prior to sending them back to work. The status of crews being formally assessed after a Mayday (or any other incident requiring mental health intervention) should be considered “out of service”.
- E. Once the Mayday(s) have been resolved, Command should contact on-scene crews and Fire Dispatch and clear the Mayday radio traffic. This announcement should include:
1. A brief Mayday conclusion report.
 2. Removal of the “Priority Radio Traffic” order.
 3. The strategy and IAP for the next operational period in the incident.