

## **Doctrine Statement**

By Charles Bailey for tinhelmet

05.07.05

This document is a little rushed. I have thought about it at length and wanted to get it perfect, I don't know that I can get it perfect. I offer it as a document in progress. I know there are mistakes in it and things I got wrong, maybe. But what we are missing in this profession more than anything is an open dialogue about what we do and why we do it. So many times I think people on fire grounds are just doing what they saw someone else do, and the person they were watching was just repeating what they saw someone else do. What happens in this situation is that we develop a base of institutional behavior that is counter to what should be happening.

Nothing I write about here are things I thought up all by myself. Some of these things I learned by experience, some by accident, others because someone told the time to sit me down and explain. I owe my life and a huge debt to the people who came before me. This is an effort to pay back the universe.

I am certainly not the knower of all things; I don't buy into the banking paradigm of teaching. I am just one little cog in a huge piece of machinery and I happen to think that if we don't stop to think about what we are doing and what the theory is behind what we do we might eventually make a mistake that we cannot recover from. My plan was to wait a while to publish this on the site. I was going to run it by a few people first. But lately I have seen with my own eyes and heard of some behaviors that are outside the realm of reason. Maybe this one little article of mine will not answer all of the questions or solve all of the problems, and that is okay.

Like with every thing else I like to define success before I embark on a path. I want to know I will know when I have done enough. This time and for this article my measure of success will be when I hear that people took the time to read, dissect, argue, and generally discuss some of the ideas I present over the next 20 pages. I think that will do nicely.

**THE BAILEY DOCTRINE STATEMENT**

**doc·trine**

1. A principle or body of principles presented for acceptance or belief...



**It's no use saying, " We are doing our best."  
You have got to succeed in doing what is necessary.  
Winston Churchill**

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"War is an art and as such is not susceptible of explanation by fixed formula"-  
**General George Patton Jr.**

## **Introduction**

Firefighting is an inherently risky and uncertain vocation. Those who undertake such a path in life should be well aware of the risks they face when performing their duties. While there are various schools of thought on how this business should be conducted, and various levels of aggressiveness in the conduct of this business, it is crucial that each organization outline the basic theoretical thought processes that underlie what we do and why we do it. It is our hope that this document will allow us, as an organization to finally get on the same page and finally start working towards our shared objectives in a more consistent and safe manner.

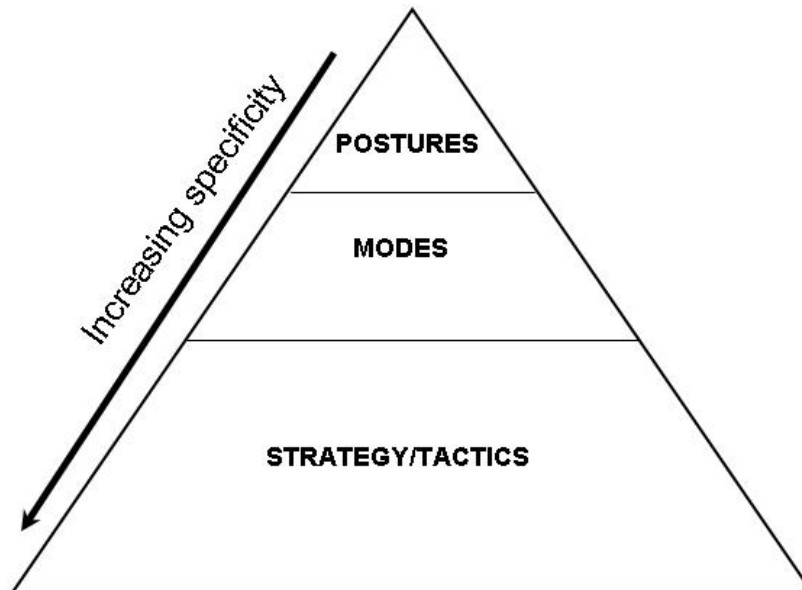
## Concurrency

The medium of this message requires that the ideas and discussions be transmitted sequentially. We may perform multiple fire ground operations simultaneously but we can only discuss them sequentially. For the rest of this document it is crucial that the reader understand that each of the items we discuss has two features:

- They can be conducted simultaneously
- They are in a state of dynamic equilibrium. The needs of life safety intertwine with the needs of incident stabilization and vice versa. The fire ground is not a solo piano player but rather the orchestra; our charge is to make music and avoid cacophony.

## Theory Progression

In this document the progression of ideas goes from the very general to the somewhat specific. It is not the intent of this document to lay out the truly specific but rather to provide a firm theoretical background for why we behave the way we behave. Inside you will find reference to postures, modes, and tactics, the following chart outlines their hierarchical relationship.



## Incident Priorities

The imagination is the only limit to the range of calls the fire department is asked to respond to. Each incident provides unique challenges to the responder and to the organization. It is impossible to outline specific actions to be taken at each incident. However, by understanding the basic laws that govern our incident behavior and by the mastery of the skills, SOPs, tools, equipment, and techniques, we employ, we can be reasonably expected to positively impact any incident to which we respond.

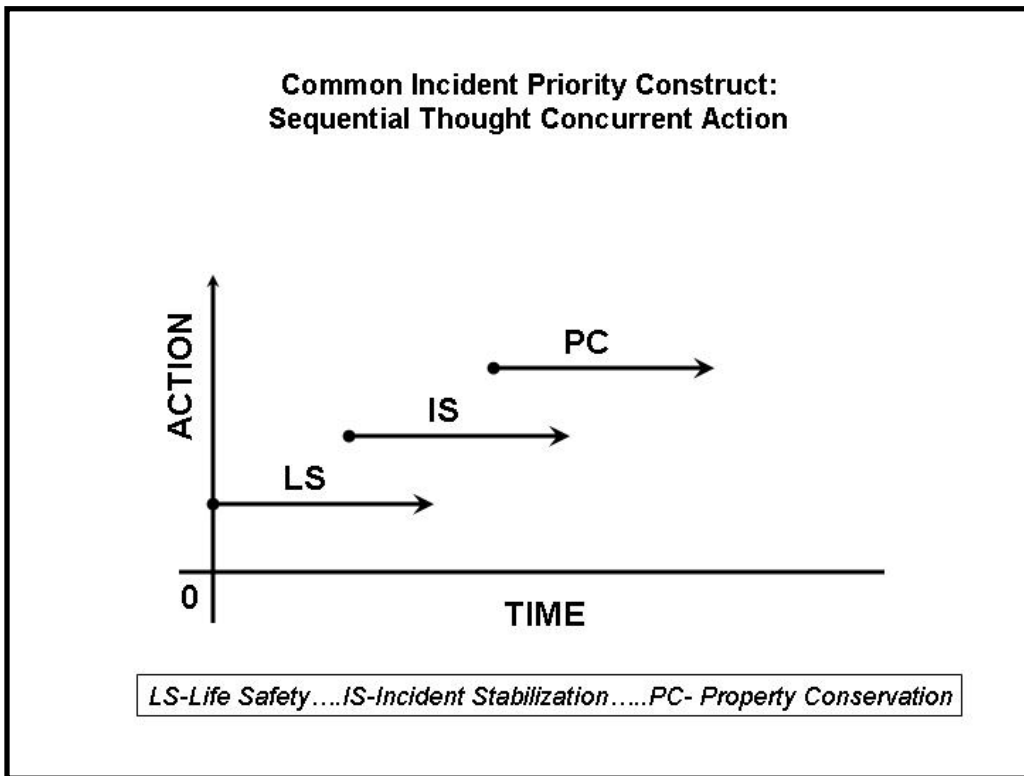
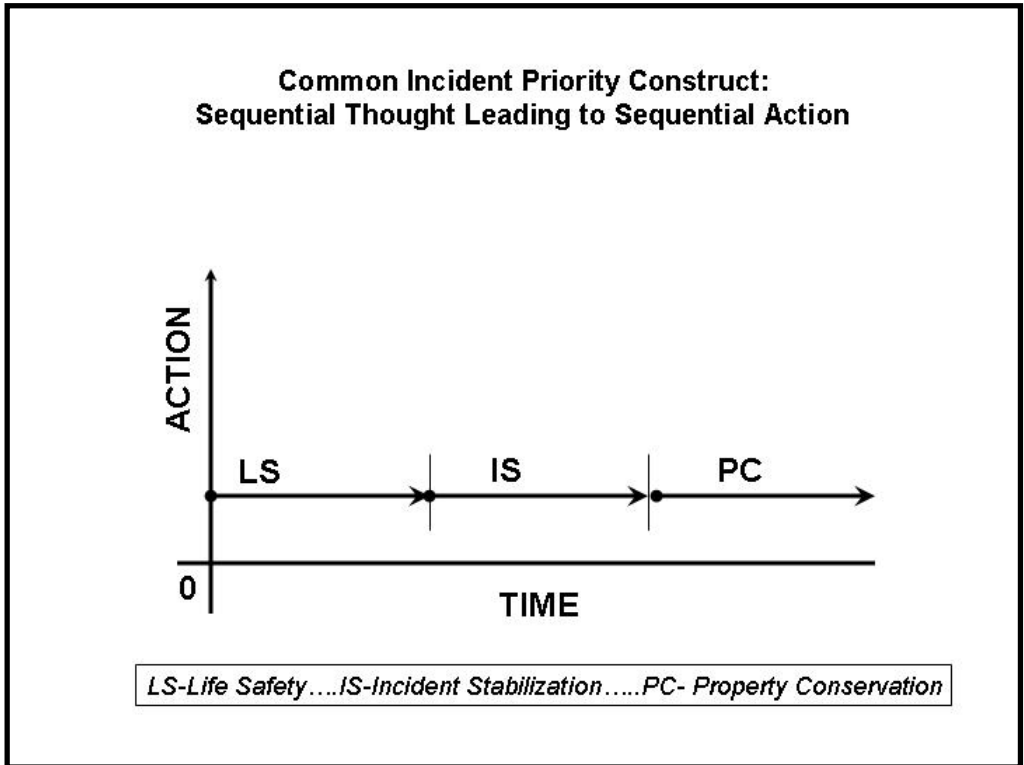
For each incident our priorities are the same:

LIFE SAFETY | INCIDENT STABILIZATION | PROPERTY CONSERVATION.

If we apply these three priorities to our collective thought process, much as we employ the Airway, Breathing, Circulation, techniques in EMS, we will be better able to adapt to the unique requirements of each incident.

**(See figures on next page)**

### Graphic Representations of Incident Priority Application



## Operational Postures

*“Saving lives at structure fires is directly related to the speed and efficiency with which you stretch the initial attack line.” Andrew Fredericks, FDNY*

When approaching a fire emergency there are three basic postures of operation:

1. Search
2. Attack
3. Defensive

### Search

We work under the assumption that all structures may be occupied and that we must conduct a search of every structure with a fire inside of it. However, the position of the search in the action sequence varies based on prevailing conditions. In this discussion the search is meant to mean the primary search effort only. There are three basic search modes:

#### *Aggressive Search*

Conditions for the aggressive search are as follows. There is a known life hazard i.e., you see a victim in a window or doorway, you hear screams out of the window, the father advises his son or daughter is inside that window “right there.” In these sorts of situations we are bound to act quickly to make the rescues. We are within the confines of reason to take extreme risks in order to make those rescues. We also do not have the time to wait for the protection of a hose line or supportive ventilation. This is a “Now or Never.” Situation and it is a rare situation.

#### *Protected Search*

This is our default search mode. In this situation you make some assumptions based on:

- The time of day
- Presence of cars in driveway
- General upkeep of structure
- Etc.....

The assumption is that someone may be inside the structure. However, you are not sure. This mode of operation requires the same vigor in the search as the aggressive mode, the difference being that a protective hose line is stretched between the fire and the victims and aggressive ventilation occurs simultaneously with the beginning of the search.

#### *Delayed Search*

Delayed searches are used in two basic situations. The first is when the conditions of the fire are such that an attempt at searching before the fire is

controlled is chance for a victim too risky and there is no reasonable chance to rescue viable victims. The search still must be conducted but may, in this case be delayed until the fire is controlled. The second situation is when bystanders, parents, or other reasonable party advises that the structure has been evacuated completely. Again, there must be a search conducted but can be delayed in this case and conducted after the fire is knocked.

\*Usually being in a delayed search mode probably means that you are in or should be in a different posture.

\*\*Note: The chances of conducting a good search under high heat/low visibility conditions are slim at best. While crews are making their way in the search effort poor conditions will hamper the search. It takes time to search and the fire department does not know how long the victims have been suffering in those poor conditions. Truck crews must ventilate the building. By performing aggressive horizontal ventilation truck crews lift smoke, heat, and other gases off of the floor, improving conditions for those trapped and those searching. This is called preparing the building for the search.

*"Make your plans to fit the circumstances."  
- General George S. Patton, Jr.*

## **Attack**

Fire attack comes in many modes. The chosen mode depends on the presentation of the fire. The fire always has a head start and thusly also has the advantage initially. If we are to intervene and stop the fire we must present with the proper mode.

### *Aggressive Interior Attack Mode*

The aggressive interior attack is the primary mode in our arsenal. When using this mode a hose crew advances into the structure, locates the fire, and extinguishes the fire.

The initial attack line should never be the only line stretched. The back-up line is placed to protect the flank of the initial attack line and/or to provide additional fire flow should it be required. The exposure line is place to prevent the spread of the fire to exposures, be they inside or adjacent to the structure. Other lines are placed as necessary.

### *Relationship between the initial attack line and the search*

When operating in the search posture the initial attack line is placed in between the fire and the assumed victims. The mission of this hose crew is to protect the victims and to protect the efforts of the initial search. Once the shift is made to attack posture only, then the mission of the line becomes fire attack primarily. It is possible to protect the search and control the fire at the same time in most cases. However, it is critical that the initial attack line understand what posture the operation is in and places their line to support that operation.

### *Relationship between the initial attack line and other fire ground functions*

With the exception of patient care, all units and operations conducted while operating in an aggressive interior attack posture have the same purpose: Support the initial attack line. The efforts of ventilation and the placement additional attack lines should be such they support the plan affected by the initial attack line.

### *Exterior Attack Mode*

When the conditions in that structure are such that there is no longer a reasonable chance to rescue a viable victim, and are so severe that there is extreme risk of death for anyone who enters, e.g., imminent collapse, imminent flashover, too large a volume of fire, an exterior attack form should be used. When using this form you still attack the fire, however, you do it with larger caliber streams from a location outside the predicted collapse zone. This is still an attack mode because our efforts are still aimed at fighting the fire.

### Defensive Posture

The defensive posture is used when the fire has made enough progress so that the initial attack stream cannot quickly control the fire and the risks are just too great to justify an aggressive interior attack and the fire is threatening other structures or uninvolved portions of the same structure.

In a defensive posture the focus is on containment of the incident to its original boundaries. In this posture we ensure that all personnel and apparatus are clear of the hazard area and that only exterior hose streams are used. We may also delay attacking the original bulk of the fire in favoring of protecting the exposures. Other activities consistent with this posture are ignoring the bulk of the fire and concentrating on removing civilians from adjacent structures.

*\* The difference between exterior attack mode and defensive posture is the difference between confining a fire to the object of origin and confining it to the block of origin; similar tactics, different scale.*

**\*\* Note:** It is possible to have a large structure like a strip mall or large warehouse where defensive operations are initiated on one side of the structure while searches are on going remote from the fire. However, command must ensure that structural failure in one part of the structure will not compromise the search crews on the other side of the structure. This is not a common situation and should be avoided.

### **\*\*\*Note: Large Diameter Attack Lines.**

There are, of course, situations that demand a higher fire flow that the 1.5" or 1.75" hand line is capable of flowing. The typical response to this situation is to deploy a large diameter attack line (by my definition any line greater than 1.75"). This habit is full of problems. It is darn near impossible for one three person (two on the line one at the pump) engine crew to advance a large diameter attack line inside a structure. We typically solve that problem by assigning two engine companies to stretch one large hand line.

There is another way. If each of the first two companies advances a 1.5 or 1.75" attack line they can flow the same amount as a single 2.5" line with a 1" tip. What you get in return is increased speed, putting a line on the fire more quickly. You get increased flexibility. Once the fire is knocked each line can hunt for extension independently. Also because both of the lines are smaller and more maneuverable you don't physically exhaust your members as quickly.

This option should be considered.

## Egress

Egress represents the way out. Remember always that if a situation or place is difficult to enter, it will be even more difficult to leave under stress. Our initial actions on the fire ground should split their focus between searching, attacking, and ensuring egress. All crewmembers must remain situationally aware, and remain oriented to the means of egress.

### *Engines and Egress*

Engines ensure egress with hose line placement.

- The placement of the initial attack line ensures egress for the victims and the searchers when properly placed.
- A properly placed back-up line should protect the egress of the initial attack line.

### *Trucks and Egress*

Trucks ensure egress using one or both of two methods.

- A truck's ventilation efforts assist in egress by making egress more visible to the crews.
- A truck's laddering efforts create egress.

### *Impediments to Egress*

The most common impediments to egress are:

- Security bars
- Boarded/blocked over windows and doors
- Air conditioning units in windows
- Inadequate window clearing
- Casement or undersized windows
- Large or complexly arranged structures

All crews who might operate in a structure that is in on fire must know how to clear these hazards and must make every effort to clear each hazard at every fire. Clearing impediments to egress is a truck duty and should be high on the list of prioritized actions. Given the duties of a truck company and give the typical three or four person staffing levels it is highly likely that the first truck on the assignment will not enter the structure until after the fire has been knocked.

## Ventilation

There cannot be enough said about the need for companies to perform adequate ventilation. The glass must go. Delayed ventilation is dangerous. Hose crews cannot advance, egress cannot be visualized, and the smoke does not lift off of the floor for the victims, until ventilation is done.

Ventilation should be coordinated with the fire attack and conducted with due regard for the search effort. Coordination means that truck crews should not be breaking glass before the engine arrives. Once the engine has a line in place and is ready to go the truck crews can begin to break glass.

It is true that improper ventilation can draw fire from one area of a structure to another. However, in most cases aggressive horizontal ventilation will solve more problems than it creates.

Vertical ventilation (with the exception of high rise fires) is risky, time consuming, manpower intensive, and of little help to initial operations. The best bet for the survivability of trapped victims and the safety of interior crews is aggressive horizontal ventilation.

The use of positive pressure ventilation (PPV) should be banned until the search is done, fire is out, and checks for extension are complete. It is true that PPV can be used as an aide to an aggressive interior attack. What PPV requires is coordination and knowledge of the interior lay-out of the structure. Our day to day efforts seem to be poorly coordinated and until that changes PPV should be out as an attack tool. Furthermore the fire department does not possess the knowledge of the structure until the fire is out.

**DO NOT HESITATE TO BREAK GLASS IF THE PLACE IS ON FIRE**

*“The power to command has never meant the power to remain mysterious.”*  
**Ferdinand Foch**

## Command

Solid effective command is the primary basis for the well-run fire ground. Without effective command all the good training and mastery of technical skills is for naught. Command must be established early into the incident, and the control of command extended until the last fire engine leaves the scene.

Command does not exist to parrot the wishes of unit officers. The function of command is not to merely acknowledge the statements of unit officers or to allow them or the circumstances dictate the pace or progression of events. Command exists to bring order to the fire ground and to provide and maintain a situationally global perspective on events.

Command should not be the victim of any circumstance besides the conditions on arrival. After arrival he or she should ensure that there is a single focus for strategic decision-making and that the strategic orders come from only one place. It is the domain of the group/division/unit officers to choose the tactics that support the strategy of the incident commander.

### *Unit Officer Command*

Command is difficult enough for the experienced fire officer and all the more so for the newly promoted officer in charge of a company for the first time. A great deal of training effort should be expended before placing unit officers in this role.

In general the guiding practices of the fire department are the SOP and for that reason the SOP should guide the initial response until the Chief arrives. If the unit officer must take command, the unit officer should follow the SOP as closely as possible.

### *Chief Officer Command*

Use the proper terminology, use clear direct language to deliver, succinct messages. Be clear in what your plan is and transmit that to the troops. Make the fire ground aware when the operational posture has changed. Keep close tabs on both the troops and the operations by dividing up tasks and keeping the span of control within practical limits. Have a back-up plan and never operate when all of your resources are committed, always have at least one unit in reserve. When you make the decision to commit the troops to battle, do it as if it were your son you were ordering into the building. When you order the troops out stand your ground and ensure that they leave. When your gut tells you something bad is about to happen; it is. Don't wait until the building falls down before you order the evacuation. Make sure that if someone dies under your command that they died for something important and real, not for a building or a burnt carcass.

## Decision Programming

Programmed Decisions- are repetitive and routine and for which a procedure or decision rule has been established or may be easily specified.

Unprogrammed Decisions- occur infrequently and are poorly structured...there is no apparent decision rule and administrators are required to engage in difficult problem solving. *Denhardt*

### Uncommon Incidents

Each day in the fire department represents potential; the potential to go to a fire or rescue scene, the potential to fight a fire confined to a room, and the potential to fight a fire in an odd or complexly arranged circumstance or building. We must be aware of the buildings and situations that do not fit the model of our bread-and-butter-operations. When faced with such situations it is imperative that every one recognizes that they are faced with an unprogrammed decision. Take a deep breath and make sure you have a well-iterated plan. These situations are generally situations that do not fit into the scope of the SOPs.

### Common Incidents

#### *Garden Apartments*

There is always someone home and so we must search aggressively, we must protect the interior stair, which is the primary means of egress. We must ventilate aggressively and always assume that the fire has extended to the attic and is spreading in at least two directions.

#### *High Rises*

The single most important thing is to get a line on the fire as quickly as possible. This is the single most effective life saving tool. There is always someone home and so we must search aggressively, we must protect common hallway, which is the primary means of egress. We must ventilate the stairwells aggressively.

#### *Strip Malls*

It is cheaper to build a new one than it is to repair a burnt one. By the time the people smelled the smoke the fire was beyond the control of the fire department. You must assume that the fire has advanced into the overhead and is in the process of destroying all the things designed to keep the building from falling down. If you feel the urge to take a 2 ½" line on the initial attack you should reconsider your posture.

## Rapid Intervention

*“It is the mark of an educated mind to rest satisfied with the degree of precision which the nature of the subject admits and not to seek exactness where only approximation is possible.” Aristotle*

A rapid intervention operation (RIO) is necessarily the product of either fire ground failure. An event or a series of events has occurred, probably none particularly egregious in their own right, but combined have left the possibility of imminent death. The window of success is small from the outset and the odds are against the rapid intervention team (RIT).

The rapid intervention team (RIT) is thrust into an emotionally charged situation and given to one mission, to locate, supply air to, protect, and extract, the injured or lost firefighter. This task is daunting and borders on the impossible under ideal conditions, conditions that cannot be found on the fire ground.

In order for the RIT to complete its mission it must be:

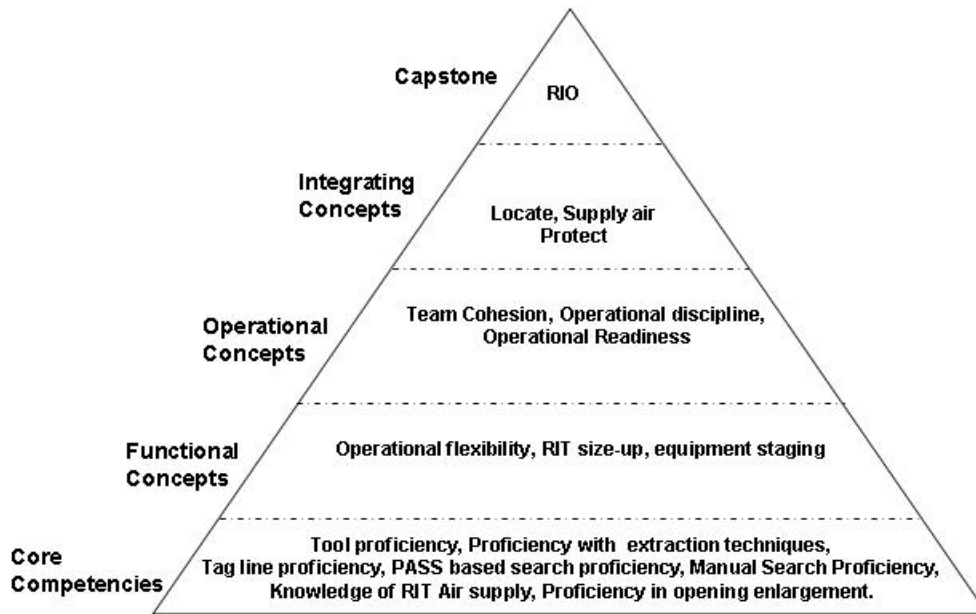
1. Well-trained
2. Disciplined
3. Focused
4. Mentally prepared to expend super-human effort in order to accomplish the mission
5. Proficient in all aspects of the operations (true inter-operability)

When the RIT is activated all members must be capable of “tactical flexibility” allowing for the conduct of multiple, concurrent, asymmetric operations. The RIT will face known and unknown threats while performing their duties and must be trained well enough to allow for quick adaptation. Our concept of the RIT is that of a highly motivated, highly trained, adaptable, organic force, prepared to handle anything, anytime, anywhere.

### *Three truths about a RIO*

- The best chance a firefighter has for survival is to avoid needing a RIT
- The second best chance a firefighter has for survival is the crew they are working with
- The third best chance a firefighter has for survival is self-rescue
- After that the odds are not so good.

**Rapid Intervention Operation (RIO) Parameters**



**ALL OPTIONS MUST BE EXPLORED AND EXPLOITED IMMEDIATELY AND SIMULTANEOUSLY. THERE WILL BE NO SECOND CHANCE TO GET IT RIGHT.**

The goal of the fire department should be to prevent ever needing the Mayday or the subsequent RIT operation. Our time, effort, and energy should be aimed at developing the basic skill set that allows us to operate with the highest level of safety possible for our chosen endeavor. Examples of that skill set follow below:

- Fire ground discipline
- Fire behavior
- Situation awareness
- Team cohesion
- Building construction

The items listed above are the true keys to the successful RIO precisely because they are the keys to preventing the need for a RIO.

Despite our best efforts at prevention ours is a world of unknown risks. There are things that happen beyond the scope of our control. Because this is true it is our imperative that we prepare for that horrible day when a Mayday is sounded, a RIT is activated and we can only hope for the best.

## The RIO

### **Modularity**

A rapid intervention policy should be modular, designed to be as large or as small as the situation dictates. While I realize that current thought processes indicate the need for a large RIT compliment this is beyond the capabilities of most departments. At the very least we must send enough to get the job started. Studies conducted by various organizations and confirmed by my own drill ground experience indicate that a crew of 12 is required for a RIO. In the event of a RIT activation command will be tasked with providing whatever additional resources will be needed.

### **Operational Continuity**

Having a unit on the initial box-alarm assigned to RIT you are able to ensure continuity between the RIT and fire suppression operations. This is crucial.

### **RIT Organization**

The RIT component of the original alarm assignment will most likely be assigned as the RIT group with the unit officer assuming the role of the RIT group leader/supervisor. As the RIT is built out with the RIT dispatch the RIT will most likely remain a group. However, should the RIT be activated the Incident Commander (IC) will be forced to decide if group level service will suffice or if the RIT group should become the RIT branch allowing for differentiation of service delivery for the RIT. At some point consideration should be given to assigning a Chief Officer to this role, especially if a RIO is initiated.

### **RIT Communication/Monitoring**

It is expected that the RIT will monitor as many fire ground talk-groups as possible, but at the very least the main tactical talk-group. By listening in on all these groups the RIT will be better able to monitor, tract, and react to a Mayday should one occur. At no point does anyone other than the IC activate the RIT. The RIT must remain focused and disciplined, resisting the urge to wander about, engage in idle chatter, or get involved in fire ground operations.

**Time is not our ally!**

## Tactical RIO Parameters

It is the primary mission of the RIT to stretch an attack line, should that be ordered by the RIT Group Leader or command, designed to protect the downed firefighter and those searching for him/her from fire or other by-products of combustion.

RIT is responsible for completing the scene size-up, bringing additional tools to the staging area as outlined in the policy. Once the RIT is activated someone has to be, based on their previous assessment, and under the auspices of the RIT group leader, prepared to perform additional ventilation to support RIO, provide other/additional means of egress to support the RIO, to enlarge openings, or create new openings in the structure.

It is also crucial that the building size-up is the guiding factor for which tools are deployed from the staging area. Units cannot waste time or valuable resources by conducting unneeded operations.

Crews must always be engaged and thinking. Creativity within the guidelines of the policy is encouraged. Maximum flexibility is the guiding maxim of the RIT-T as they seek to employ any and all of the possible range of ideas to mitigating the problem.

All RIO functions are designed to support the operation of the RIT search. This unit is charged with locating, securing the air supply for, and preparing the packaging for the downed fire fighter. In order to accomplish this mission they are in need of the support that the other functions provide. They must be well versed in PASS guided search procedures, manual search procedures, thermal imaging, and patient packaging.

It is unrealistic to think that the team that finds the victim will also be the unit to effect the final rescue. Our RIO operational theory is designed to cover the finer points of providing the initial portion of this crucial mission, locating, protecting, supplying with air.

The easiest and best practice for conducting the search is arguable. Each situation will demand different tactics and squad crews should be well versed in all of them. At the very least crews should be able to perform a PASS guided search, and a quick but thorough manual search of a given structure.

Unfortunately the search operation requires strengths in areas that have historically been our weakest areas, such as:

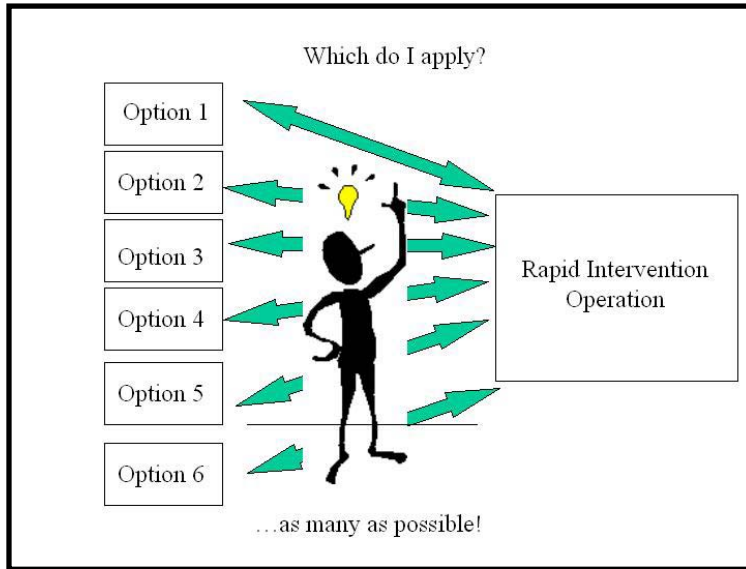
- Crew Integrity- finding one member of a crew should always put me in close proximity to the remainder of that crew

- Crew Discipline- Crews who are where they say they are or are where they should be are easier to find.
- Proper Mayday Training- teaches firefighters to call for help before it is too late, allowing the RIT a greater margin of opportunity.
- Strong Crew Leadership- allows the crew to stay focused and on task throughout this grueling affair.
- Training- this is the only way to develop and maintain the needed proficiencies.

## RIT Command

Perhaps the most vital component of a RIO is the command component. In the absence of a strong command presence there is just no chance for a successful RIO. Command must allow for the RIT function to occur with the maximum flexibility we discussed before.

However, command must also allow for decentralized decision making from the RIT Group/Branch Leader and the individual RIT units.



Great debate occurs when discussing who should actually command a RIO. Some insist that the IC should continue managing the original emergency and assign someone else to manage

the mayday that led to the RIO. Others insist that it will usually be the IC who acknowledges the original mayday and that once contact has been made with the downed firefighter it must never be relinquished. The reality is that the situation and the players present at the time will determine how this scenario unfolds. Command is not unlike the RIT in that he/she has multiple options available and must be trusted to employ the most appropriate option.

When a RIO is ongoing it is crucial that someone be dedicated to monitoring the activity of the RIT group members. With so many things happen at the same time, there must be one person whose only job is to monitor the amount of time the RIT has been committed.

### Additional Resources

Command must realize that a RIO will tax the fire ground both operationally and emotionally. It is imperative that the IC secure sufficient extra resources to manage the mayday and the ongoing suppression operation(s) (OSO). Common thought says that the IC should request at least one alarm size response about what he/she has already on the scene. This should allow for relief of both RIT members and members engaged in (OSO).

**(OSO)**

OSO are the methods by which we seek to further stabilize the RIO. If suppression units break discipline and attempt to join the RIO that leaves the fire to grow in intensity which of course hampers the RIO. A mayday does not necessarily equate an evacuation. Crews must continue to function. Of course, common sense dictates action. A hose crew operating on the second floor quadrant B when a mayday is called from that area must initiate a search of their immediate operational area.