Command and Control of the RIC Deployment

Approved and Adopted by the
Office of the State Fire Marshal

Recommended for adoption by the Statewide
Training and Education Advisory Committee
and the
State Board of Fire Services

INSTRUCTOR GUIDE

February 2011

COMMAND AND CONTROL OF THE RIC DEPLOYMENT

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Mission Statement

The mission of State Fire Training is to enable the California fire service to safely protect life and property through education, training, and certification.

Fire Service Training and Education Program

The Fire Service Training and Education Program (FSTEP) was established to provide specific training needs of local fire agencies in California. State Fire Training coordinates the delivery of this training through the use of approved curricula and registered instructors.

The FSTEP series is designed to provide both the volunteer and career fire fighter with hands-on training in specialized areas such as fire fighting, extrication, rescue, and pump operations. All courses are delivered through registered instructors and can be tailored by the instructor to meet your department's specific need. Upon successful completion of an approved FSTEP course, participants will receive an Office of State Fire Marshal course completion certificate.

Acknowledgments

State Fire Training coordinated the development of the material contained in this guide. Before its publication, the Statewide Training and Education Advisory Committee (STEAC) and the State Board of Fire Services (SBFS) recommended this guide for adoption by the State Fire Marshal (SFM). This guide is appropriate for fire service personnel and for personnel in related occupations.

Ken Pimlott Director of CAL FIRE	
Tonya Hoover Acting State Fire Marshal	**Vacant** Assistant State Fire Marshal
Mike Richwine Chief, State Fire Training	**Ronny J. Coleman** Chair, STEAC

Special acknowledgement and thanks are extended to the following members of CDF/State Fire Training Curriculum Development Division for their diligent efforts and contributions that made the final publication of this document possible.

Alicia Hamilton Fire Service Training Specialist III

The material contained in this document was compiled and organized through the cooperative effort of numerous professionals within, and associated with, the California fire service.

We gratefully acknowledge the following individuals who served as principal developers for this document.

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We also thankfully acknowledge the following individuals who served as contributors to this document.

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"We gratefully acknowledge the hard work and accomplishments of those before us who built the solid foundation on which this program continues to grow."

Student Profile

Target Group

Company officers and chief officers in the command and control of a RIC deployment event at a structure fire.

Prerequisites

Command 1A and ICS-200.

Desired Attendance Time Frame

None.

Class Requirements and Space

The characteristics of the classroom and support facilities have a great impact on the learning environment and the instructor's success or failure. For this course, it is advisable for the instructor to adhere as closely as possible to the following guidelines.

Classroom Equipment

- ❑ Conference board/pads with markers/erasers
- ❑ Appropriate audiovisual training aids and devices
- ❑ Portable radios (minimum of six)

Materials

- ❑ Course outline
- ❑ Calendar of events
- ❑ Formative test and answer key
- ❑ Case studies
- ❑ Student manual
- ❑ Grading sheets
- ❑ Tactical worksheets
- ❑ Message cards

Introduction to the Instructor Guide

This publication is intended to serve as an instructor guide. For each topic identified in the course outline, a lesson plan has been developed that contains: a time frame, level of instruction, authority, behavioral objective, materials needed, method of instruction, references, preparation statement, lesson content, and end page. Suggested application methods have been identified throughout the lessons for you to use during your presentation.

- **Time Frame**: The estimated duration required for in-class presentation.
- **Level of Instruction**: Identifies the instructional level that the material was designed to fulfill. You have the latitude to increase the level based on available time, local conditions, and the students' apperceptive base.
- **Authority**: Keyed, when applicable, to the appropriate Certification Training Standard task.
- **Behavioral Objective**: The behavioral objective is a statement of the student's performance desired at the end of instruction. You must ensure that enough information is given in the presentation and/or activities to enable the student to perform according to the goal.
- **Materials Needed**: This should be a complete list of everything you will need to present the lesson, including visual aids, tests, etc.
- **References**: These are the specific references the curriculum development team used when developing the lesson plan. In addition, references may be listed as additional study aids for instructors to enhance the lesson -- books, manuals, bulletins, scripts, visual aid utilization plans and the like.
- **Preparation**: The motivational statement connects the student with the lesson plan topic through examples or illustrations relating to their occupation, injury, and even mortality. You will need to develop this statement to fit your target audience.
- **Lesson Content**: Includes information used in the four-step method of instruction.

Cognitive Lesson Plans

PRESENTATION	APPLICATION
Everything you say or display Content Notes	Student Participation • Questions • Activities • Audiovisual Cues

Psychomotor Lesson Plans

OPERATIONS	KEY POINTS
Specific actions to be performed by the students Begin with a verb, followed by a noun	The who, what, when, where, why, and how (the "tricks of the trade") Safety practices

Appendix A – Formative Test

- Test masters to copy for your students. Keep these in good condition to use for future classes. Collect these tests after they have been graded and discussed in class.
- ***Do not let the students keep them since you will be using the same tests for your next class.***

Appendix B – Formative Test Answer Key

- Formative test with answer key.

Appendix C – Grading Sheets

- Grading sheet masters to copy for your students. Keep these in good condition to use for future classes.

Appendix D – Message Cards

- Message card masters to copy for your students. Keep these in good condition to use for future classes.

Appendix E – Tactical Worksheets

- Worksheet masters to copy for your students. Keep these in good condition to use for future classes.

Course Outline

Course Objectives: To provide the student with…

a) Information on rapid intervention crew terminology and the tools required to conduct a rescue operation.

b) A methodology for conducting a risk management assessment of structural fire fighting critical fireground factors.

c) An analysis of fire fighter line-of-duty injuries and fatalities case studies, taking into account both risk and critical fireground factors.

d) A command awareness and the control techniques required to effectively manage an emergency traffic event.

e) Techniques to properly manage an emergency traffic situation when fire fighters become lost or trapped inside a burning structure.

Course Content.....**8:00**

1. Orientation And Administration..... 0:45
2. Critical Fireground Factors And The Risk Management Process……..... 1:15
3. Fire Fighter Line-of-duty Death And Injury Case Studies……..... 1:00
4. Command Awareness And Managing A RIC Deployment 1:30
5. Emergency Traffic Simulations..... 3:30

Texts and References

- California Code of Regulations (CCR), Title 8, Section 5144(g)
- ICS-910: Firefighter Incident Safety and Accountability Guidelines, FIRESCOPE, July 2008
- OSHA 29 Code of Federal Regulations (CFR) 1910.134
- NFPA 1250: Recommended Practices in Emergency Service Organization Risk Management, 2004 Edition
- NFPA 1500: Standard On Fire Department Occupational Safety And Health Program, 2007 Edition
- NFPA 1710: Standard For The Organization And Deployment Of Fire Suppression Operations, Emergency Medical Operations, And Special Operations To The Public By Career Fire Departments, 2010 Edition
- NFPA 1720: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments, 2010 Edition

- NIOSH #20000349: Commercial structure fire claims the life of one fire fighter – California http://www.cdc.gov/niosh/fire/reports/face9807.html
- NIOSH #20020725: Supermarket fire claims the life of one career fire fighter and critically injures another career fire fighter – Arizona http://www.cdc.gov/niosh/fire/reports/face200113.html
- NIOSH #20032349: Career engineer dies and fire fighter injured after falling through floor while conducting a primary search at a residential structure fire – Wisconsin http://www.cdc.gov/niosh/fire/reports/face200626.html
- NIOSH #20032969: Career fire fighter dies in residential row house structure fire – Maryland http://www.cdc.gov/niosh/fire/reports/face200628.html
- NIOSH #20033136: Career fire fighter dies when trapped by collapsed canopy during a two alarm attached garage fire – Pennsylvania http://www.cdc.gov/niosh/fire/reports/face200708.html
- NIOSH #20033835: Career fire fighter dies in wind driven residential structure fire – Virginia http://www.cdc.gov/niosh/fire/reports/face200712.html
- Rapid Intervention Company Operations, Mason and Pindelski, 2006 Edition
- U.S. Fire Fighter Fatalities, NFPA, 2008
- U.S. Fire Fighter Injuries, NFPA, 2008
- U.S. Fire Problem, NFPA 2008

Calendar of Events

TITLE	TIME	ACTIVITY
Precourse Assignment #1		Review
Precourse Assignment #2		Matrix
Welcome And Course Overview	0:45	1-1
Critical Fireground Factors And The Risk Management Process	1:15	
Fire Fighter Line-of-duty Death And Injury Case Studies	1:00	
Command Awareness And Managing A RIC Deployment	1:30	
Emergency Traffic Simulations	3:30	4-1
Classroom Hours:	**8:00**	

Topic: 1: Orientation And Administration

Time Frame: 0:45

Level of Instruction: Level II

Authority: State Fire Marshal

Behavioral Objective:

Condition: Given two precourse assignments and an activity

Behavior: The student will conduct an analysis of fire fighter line-of-duty injuries and fatalities case studies, taking into account both risk and critical fireground factors and identify RIC terminology and RIC tool requirements

Standard: By successfully completing Precourse Assignments #1 and #2 and Individual Activity 1-1

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- Individual Activity 1-1: RIC Terminology and Tools Test (Appendix B)
- Individual Activity 1-1: RIC Terminology and Tools Test Answer Key (Appendix C)

References:

- Command and Control of the RIC Deployment Student Manual, SFT, 2011 Edition, Pages 1-13
- Rapid Intervention Company Operations, Mason and Pindelski, 2006 Edition, Chapters 1-3

Preparation: Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.

PRESENTATION	APPLICATION

I. INTRODUCTIONS AND WELCOME

A. Host agency introduction

B. Instructor introductions

C. Participant introductions

D. Group assignments and sign-in sheets

II. COURSE OBJECTIVES

A. Review course objectives

1. Provide information on Rapid Intervention Crew (RIC) terminology and the tools necessary to conduct a fire fighter rescue operation
2. Provide a methodology for conducting a risk management assessment of structural fire fighting critical fireground factors in an effort to prevent a fire fighter emergency situation
3. Conduct an analysis of fire fighter line-of-duty injuries and fatalities case studies, taking into account both risk and critical fireground factors, in order to learn from and prevent a fire fighter emergency situation
4. Provide command awareness and the control techniques required to effectively manage a fire fighter emergency event should the situation occur
5. Demonstrate the ability to properly manage a fire fighter emergency situation should fire fighters become lost or trapped inside a burning structure

III. COURSE OVERVIEW

A. Incident Commanders as well as RIC Supervisors and team members must utilize proper terminology when conducting a RIC operation

1. They must also know which tools are necessary to successfully rescue a lost or trapped fire fighter

B. Incorporating the five-steps of the risk management assessment process during every incident will instill a safety first mindset in everyone's mind and possibly negate the need for a RIC deployment

PRESENTATION	APPLICATION

1. Critical fireground factors that can lead to fire fighter injury or death will be reviewed

C. Strong policies or operating guidelines should be adopted by each organization and should outline how RIC operation will be managed and controlled

NOTE: An example of an operating guideline can be found on Pages 29-38 in the Rapid Intervention Company Operations, Mason and Pindelski, 2006 Edition.

D. The near miss and line-of-duty death reviews are not to criticize the participants but rather to provide everyone with knowledge that may avoid becoming the next statistic.

E. Simulating a RIC deployment will help develop the skills necessary to calmly and effectively manage the emergency incident

1. Fire fighter's lives depend on the Incident Commander's and RIC Group Supervisor's abilities to manage the deployment

F. This course is designed for continuous input and development

1. There is no one-way to do things
2. These are starting points for you and your department to develop local policies or guidelines

G. Review the Calendar of Events

IV. ADMINISTRATIVE ANNOUNCEMENTS

A. Facility orientation

1. Restrooms
2. Exits and fire alarms
3. Refreshments
4. Smoking
5. Breaks
6. Phones, pagers, radio
7. Parking

PRESENTATION	APPLICATION
B. Course completion requirements 1. Successfully complete the preassignment a) Download student manual from the SFT website prior to the class 2. Successfully complete Group Activity 4-1: Command and Control RIC Deployment Exercises 3. Pay the FSTEP registration fee for this class C. Other announcements as needed	
NOTE: Collect the precourse assignment and review while the students complete Individual Activity 1-1.	**CLASS ACTIVITY:** Complete Individual Activity 1-1.
NOTE: Grade and discuss the formative test with the students.	

Formatted: Bullets and Numbering

Summary:

Strong command and control is a crucial link to the success of any emergency situation. Participation in this course will help develop a strong foundation for specifically managing a fire fighter emergency incident.

Evaluation:

The student will complete the precourse work and take the formative test.

Assignment:

None.

Individual Activity 1-1: RIC Terminology and Tools Test

Time Frame:	0:20
Materials Needed:	• Formative test (one for each student) • Pen or pencil
Introduction:	This activity provides the students the opportunity to confirm their knowledge of rapid intervention crew terminology and tools.
Directions:	1. Print your name and today's date on the space provided. 2. Start taking the test when the instructor says, "Begin." 3. You have 10 minutes to complete the test. 4. The instructor will review the answers with the class.

COMMAND AND CONTROL OF THE RIC DEPLOYMENT

Topic: 2: Critical Fireground Factors And The Risk Management Process

Time Frame: 1:15

Level of Instruction: Level II

Authority: State Fire Marshal

Behavioral Objective:

Condition: Given an activity

Behavior: The student will describe and apply critical fireground factors found at structure fires and the risk management process

Standard: With 100% participation

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- Group Activity 4-1: Command and Control RIC Deployment Exercises

References:

- NFPA 1250, Recommended Practices in Emergency Service Organization Risk Management, 2004 Edition, Chapters 4-8
- NFPA 1500, Standard on Fire Department Occupational Safety and Health Program, 2007 Edition, Chapter 8
- Rapid Intervention Company Operations, Mason and Pindelski 2006, Chapter 4

Preparation: Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.

PRESENTATION	APPLICATION
NOTE: This lesson plan contains some basic risk management information and may be used only as a refresher. Adjust your presentation to the experience level of the students.	
I. INTRODUCTION	
A. Command staff, fire fighters and RIC personnel should be keenly aware of all critical fireground factors and their correlation to the risk management process	
B. Review of the fireground factors and risk management process must occur throughout the incident	
C. Incorporating critical fireground factors into the risk management process should reduce the risk of fire fighter injury and death on structural fire-fighting incidents	
	What is risk?
II. RISK IS THE LIKELIHOOD OF EXPOSURE TO INJURY OR LOSS	
A. Risk is the nature of our job	
B. The key to risk is understanding that we must manage risk to an acceptable level	
C. Any act that is predictable is preventable	
1. This is the foundation of risk management	
	How do we define risk management?
III. RISK MANAGEMENT	
A. Risk management is the method used in pre-emergency and emergency settings to reduce the likelihood of exposure to injury or loss	
1. Significant risk should be taken to save a life	
2. Minimal risk should be taken to save property	
3. No risk should be taken to save lives or property that cannot be saved	

PRESENTATION	APPLICATION
IV. RISK MANAGEMENT PROCESS	What are the five steps of the risk management process?
A. Five steps of the risk management process 1. Situational awareness 2. Hazard assessment 3. Hazard control 4. Decision point 5. Evaluation	
B. Step 1: Situational awareness 1. Gather relevant information about the structure a) Size, age, construction, occupancy, etc. 2. Evaluate fire behavior and conditions a) Phase of fire b) Smoke conditions c) Fires impact on occupants 3. Determine if occupants are at risk before you commit personnel inside the structure 4. Assure proper communications a) Frequency b) Radio designation c) Assignments 5. Determine who is in charge of each assignment a) IC b) Division c) Group d) Company e) RIC 6. Consider local factors a) Units responding	

PRESENTATION	APPLICATION

b) Staffing

c) Training and qualifications of personnel

7. Evaluate own situation
   a) Training
   b) Qualifications
   c) Experience
   d) Resources to properly manage the incident
      1) Do not be afraid to call for help if the incident is beyond your capabilities
8. Determine strategic objectives
   a) Offensive
   b) Defensive
   c) Combination attack

C. Step 2 – Hazard assessment
   1. Phase for identifying hazards on the incident
      a) Potential building construction hazards that may result in structural collapse or rapid fire spread
      b) Fires affect on the building components
      c) Fuel loading and its affect on fire growth and spread, and time-temperature curve
      d) Smoke conditions and potential for flashover or backdraft
      e) Occupancy hazards
      f) Consider severity vs. probability
   2. Tactical hazards
      a) Wrong attack line selection adequate for volume of fire
      b) Improper use of horizontal or vertical ventilation or no ventilation in conjunction with interior fire attack
   3. Risk prioritization
      a) Categorize most severe hazards first

PRESENTATION	APPLICATION

D. Step 3 – Hazard control

1. Implementing changes that will mitigate hazards that have been identified

a) Three main components

1) Engineering controls

2) Administration controls

3) Personal protection

b) Engineering controls

1) Change the hardware or process available at our disposal

- Proper structural PPE and SCBA
- Adequate fire flow for BTUs
- Personal radio issuance
- Thermal imaging camera (TIC)

c) Administrative controls

1) Control actions of people

- Laws – CPC 148.2
- Regulations – CCR 5144 Respiratory Protection
- Standards – NFPA 1250, 1500, 1710
- Local policy and procedures

Sound fireground operations

Span of control

Proper use of ICS

Rapid Intervention Crew operations

d) Personal protection controls

1) Risk avoidance

- Working under lightweight unprotected roof assembles
- Doing interior fire attack without proper ventilation and/or fire flow

PRESENTATION	APPLICATION

- Offensive fire attack without confirmed life risk
- RIC assigned to less qualified company or not at all

2) Risk transfer

- Direct hazard to the group best suited to the task
- Designate truck company to perform ventilation
- Highly trained company with the proper tools assigned to RIC operations

3) Time exposed to risk

- Relative to hazard
- On roof only long enough to vent the fire
- Trigger points for changing strategy

4) Distance from risk

- Stay out of collapse zone
- Stay off or from under unprotected lightweight roof assemblies
- Stay out of high hazard occupancies with no life hazard

2. Lookout, communication, escape route, and safety zone (LCES)

a) Lookout for one another; do not freelance

b) Maintain face-to-face and radio communication at all times

c) Have an escape route and a secondary escape route planned

1) Carry the proper tools needed to get out should something unforeseen occur

2) Make sure RIC is softening the structure

d) Establish a safety zone inside the structure to afford everyone time to get out safely

PRESENTATION	APPLICATION

E. Step 4 – Decision point
   1. Are controls in place for identified hazards?
      a) No – reassess
      b) Yes – next question
   2. Is the selected strategy and tactics based on expected fire behavior, projected fire spread, the fires affect on the structure, and the fire affect on civilians inside the structure?
      a) No – reassess
      b) Yes – next question
   3. Have strategic objectives been given to everyone arriving on scene and are they understood?
      a) No – reassess
      b) Yes – initiate action

F. Step 5 – Evaluate
   1. Personnel
      a) Are they meeting the objectives assigned?
      b) Are they distracted from primary task?
      c) Is fatigue or stress a factor in the decision making process?
      d) Are unnecessary risks being taken for little or no benefit?
   2. Situation
      a) What is changing on the incident?
      b) Are strategy and tactics working?
      c) Is everyone updated on the progress being made on the incident?

V. LOW FREQUENCY / HIGH RISK SITUATIONS

A. Situations that result in many fire fighter injuries and fatalities
   1. RIC Operations
   2. Interior fire attack

PRESENTATION	APPLICATION
3. Vertical ventilation 4. Civilian rescue **VI. WARNING SIGNS OF A PENDING RIC DEPLOYMENT** A. Departments that have experienced missing or trapped fire fighters have compiled factors that were present prior to tragic events	
	At what level (command, company, or individual) can we see signs that might alert us to potential problems?
B. Potential problems can be seen at all levels 1. Some are command level signs that ICs or Division Supervisors should acknowledge, communicate, and respond to 2. Some are company level signs that Company Officers should be alert for and take appropriate action when encountered 3. Some are individual signs that must be communicated to supervisors C. You arrive on scene of a working fire; however, your entry will be delayed 1. Reasons a) Long hose stretches b) Forcible entry challenges c) Access problems d) Unsecured water supply e) Delay in arriving units 2. Fire loading leads to increases in fire intensity and fire growth 3. Loss of time awareness occurs when entry is delayed 4. Operational clocks need to start at time of dispatch, not time of initiating fire attack	

PRESENTATION	APPLICATION

D. You arrive on scene with smoke and flames showing from the roof and initiate an interior attack because of a known rescue

   1. Interior fire venting through the roof compromises structural integrity, increase fire spread, and posses more risk to civilians
   2. Sustained burn time is shortened in modern construction and roof collapse is likely
   3. If a rescue is confirmed, progress interior lines methodically, constantly evaluating fire behavior and progress, coordinate with ventilation crews and keep the IC informed

E. Multiple companies are making entry through a single entry point

   1. Single door entry and egress points are designed for single person "nonemergency" pass through
   2. Evacuating multiple companies through a single entry door in emergency evacuation conditions could prove fatal
   3. Look for multiple access points and limit the number of companies attacking the fire through single person pass through points
   4. Use RIC to soften the building and make alternative egress points known by everyone

F. Your crews are working with unfamiliar crewmembers

   1. Company Officers must bring new crewmembers up to speed with expectations, crew dynamics, and crew SOPs
   2. First in area hazards must be reviewed and discussed with the unfamiliar crewmembers
   3. Trigger points for areas of concern must be identified by Company Officers

G. Your crews are operating in zero visibility, the thermal balance is banking down, and air is being drawn in rapidly behind you

PRESENTATION	APPLICATION
1. Fire is drawing for more oxygen and temperatures are rising 2. Interior crews must back out of the situation until the environment stabilizes with proper ventilation and adequate fire flow 3. If the interior gets untenable for fire crews, it likely that victims will not survive H. Your crews can hear the fire burning but cannot see the fire 1. Lack of vertical or horizontal ventilation allows the thermal balance to push down on interior crews a) This will limit visibility and progress 2. Crews should retreat to a safe location until conditions improve by means of ventilation 3. Consider additional lines I. Your crews flow water on the seat of the fire but make no progress 1. BTUs produced are exceeding the gpm delivered 2. Water may not be reaching the seat of the fire 3. Reassess line size, nozzle selection, and number of lines	Have you ever seen crews employing single-family dwelling tactics on a commercial structure fire?
J. Your crews are employing single-family dwelling tactics on a commercial building fire 1. Hoseline selection is an indication of situational awareness a) Large lines provide more gpm and limit entry depth 2. Large overhead areas are not controlled, or checked before entry	

PRESENTATION	APPLICATION

K. Your interior crews can hear the sound of vertical ventilation being conducted behind them
   1. Fire conditions or construction types may limit location of ventilation operations
   2. Interior crews must coordinate their progress with ventilation crews and the IC, so ventilation efforts don't pull fire over the top of interior crews

L. Ventilation crews are driven off the roof by fire extension before your interior crews can make fire attack
   1. Communications between the IC, interior crews, and exterior ventilation crews is critical
   2. This will effect operational mode decisions "offensive versus defensive"

M. Crews are unable to communicate effectively with the IC or the IC cannot communicate with crew
   1. Crews which cannot communicate with the IC or Division/Group Supervisors must retreat to locations where clear communications can be made
   2. Compromised communications with the IC can be the basis for a RIC deployment to check on interior operating crews

N. Crews are working under a mezzanine or facade
   1. Mezzanines and facades are commonly "afterthoughts" and are not incorporated into the structural members of a building
   2. They represent multiple hazards for crews
   3. They present collapse hazards during and after fire suppression
   4. They contain void spaces for hidden fires
   5. In the case of mezzanines, they can be overloaded
   6. Roll-up doors make for good entry points because they rarely have mezzanines or facades above them, providing larger entry/egress

PRESENTATION	APPLICATION
	What are the air management expectations in your organization?
O. The low air alarm on your crews SCBA sounds, and they have still not located the seat of the fire 1. You must know how much time it takes your crews to breath down a bottle under fire conditions – remember the 1/3-1/3-1/3 rule 2. This time is learned through training and experience 3. SCBA capacity helps you to "time stamp" an incident 4. If you have not located the seat of the fire within the time it takes to safely expend 1 bottle, you should reconsider the operational mode and the effect of the fire on structural integrity 5. Proper air management by Company Officers should allow for exit from a building prior to the low air warning device sounding	
P. Do you feel uncomfortable or apprehensive? 1. Trust your instincts 2. Look for reasons why your instincts are alerting you 3. Alter your tactics accordingly and communicate your concerns	
	What can the IC expect when the fire fighter emergency incident occurs?
Q. A high-stress, time-compressed event 1. The IC will be overwhelmed with information 2. Updates will come rapidly 3. Radio discipline must be maintained 4. Decisions must be clear and communicated concisely 5. Preset checklists or SOPs will help 6. Keep RIC crew(s) in position through overhaul	

PRESENTATION	APPLICATION
R. An emotional event 1. Emotions may influence decision-making ability 2. Crews will be drawn into freelancing due to overwhelming desire to help a fellow fire fighter who is in trouble 3. Emotional responses must be controlled by officers in command positions 4. IC must maintain radio and crew discipline S. A physically and mentally exhausting event 1. After completion of the event, the IC and command level officers may need relief 2. Crews involved will need relief T. IC must work to end the event quickly 1. Having adequate resources help 2. Having and knowing SOPs will help U. IC must either manage the RIC deployment or manage the fire 1. Unless the deployment is done with only one crew, the complexity and radio traffic will overwhelm the IC 2. Be prepared to hand off the RIC deployment or the fire event V. IC must know when to end the event 1. Toughest decision for the IC to make 2. Emotions of the event may lead to physical restraint being necessary W. Transition from rescue to recovery will be dictated by the nature of the fire fighter emergency event	

Summary:

Using a risk management process on every incident will instill a risk versus gain evaluation of the situation. Knowing and understanding the critical fire ground factors, and how to continually incorporate them into the risk management process, will minimize the risk of injury or death to fire fighters on structure fires and reduce the need for RIC to be deployed.
The IC must be cognizant of the warning signs and condition changes which indicate the fire ground environment is becoming more dangerous. When the unforeseen occurs, management of the fire fighter emergency event may be the toughest thing an Incident Commander will face in the course of his or her career. When a fire fighter emergency is declared, the IC must be ready for the stress and dynamics of the event.

Evaluation:

The student will complete the activity at a time determined by the instructor.

Post-course Assignment:

Review the NIOSH investigation reports included in your student manual. Use the five-step risk management worksheet included in the student manual to help instill the process of properly evaluating every structure fire using the safest mode of operation.

COMMAND AND CONTROL OF THE RIC DEPLOYMENT

Topic: 3: Fire Fighter Line-of-Duty Death And Injury Case Studies

Time Frame: 1:00

Level of Instruction: Level II

Authority: State Fire Marshal

Behavioral Objective:

Condition: Given an activity

Behavior: The student will describe and apply methods used to command and control a RIC deployment

Standard: By successfully completing Individual Activity 3-1 and with 100% participation on Group Activity 4-1

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- Individual Activity 3-1: Fire Fighter Fatality and Injury Case Study Analysis
- Group Activity 4-1: Command and Control RIC Deployment Exercises

References:

- Fire-Related Firefighter Injuries in 2009, NFPA
- Firefighter Fatalities in the United States in 2009, NFPA
- NIOSH Fire Firefighter Fatality Investigation and Prevention Program Investigation Reports

Preparation: Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.

PRESENTATION	APPLICATION

NOTE: Instructors are encouraged to maintain and present the latest documented incidents that are pertinent to the course.

I. NFPA STATISTICS

A. The number of structure fires in 2009 in the United States continues to decline but the number of fire fighter injuries and fatalities remains almost the same

1. Structure fire statistics (from NFPA research/fire statistics/The U.S. Fire Problem)

a) 480,500 structure fires (down 7% from 2008)

b) 3,010 civilian deaths

c) $12.5 billion in property damage

B. Fire fighter injuries (from NFPA research/fire statistics/The U.S. Fire Service)

1. 78,150 fire fighters were injured in 2009 according to a NFPA report

a) 32,205 of these injuries occurred on the fireground

C. Fireground fatalities in 2009 (from NFPA research/fire statistics/the U.S. Fire Service)

1. 82 fire fighter deaths

2. Fireground operations accounted for 27 deaths

3. 18 deaths occurred at 15 structure fires

a) 9 in residential property fires

1) 7 in one- and two-family dwellings

2) 2 in apartment buildings

b) 4 in vacant house fires

c) 2 in a delicatessen fire

d) 1 in a restaurant fire

e) 1 involving a grain silo

NOTE: Review of these incidents is not meant to be critical of any department's or individual's actions, but to bring awareness and hopefully start reducing the number of

PRESENTATION	APPLICATION

fire fighters injured and killed every year and subsequently the need for a RIC deployment. Return the Fire Fighter Fatality and Injury Analysis Matrix to the students and review using the information below.

II. COMMON FACTORS IN FIRE FIGHTER FATALITIES

A. Breakdown in the ICS

B. Lack of or inadequate SOPs

C. A breakdown in the accountability of personnel on the fireground

D. Breakdowns in communication on the fireground

E. Lack of recognition of key aspects related to structure construction

III. CASE STUDY #1 – FATALITY AND INJURY WISCONSIN, AUGUST 13, 2006, 1227 HOURS

A. Situation

1. Two-story, single-family residence with light smoke showing upon arrival of the first units
2. Engine 451 arrived on scene first, followed by Ambulance 451 and Truck 451
3. Neighbors reported that there may be someone in the residence as E-451 personnel pulled a 2½" gated wye with a 1¾" hand line to the front door

B. Structure information

1. Two-story residence built in 1999
2. 3,500 square feet
3. An additional 1,200 square feet of living space was below grade
4. The floors consisted of lightweight wooden parallel-chord truss and wooded I-beams with lightweight concrete on top
5. The basement walls were preformed with Styrofoam insulation

PRESENTATION	APPLICATION

C. Initial fire conditions
   1. Light smoke showing as the first units arrived on scene
   2. While companies prepared to force entry, light grey smoke was seen pushing from a basement vent next to the front door
   3. During a 360-degree size-up conducted by the officer of E-451, a ground level vent on the C-side showed pushing black smoke with burning materials
   4. Yellow/brown smoke filled the entire first floor of the structure
      a) Near zero visibility
      b) Minimal heat conditions

D. Primary search and initial attack
   1. Battalion Chief 411 arrived on scene after companies from station 451 and assumed command
   2. E-451 entered the foyer and conducted a right-hand search to find the basement entry, but was unsuccessful
      a) They changed directions
   3. Ventilation improved visibility on the first floor and E-451 was able to advance the 1¾" hoseline down the basement stairs
   4. The officer and FF from E-451 opened the basement door and encountered thick black smoke with intense heat coming from the B-side
      a) Both fire fighters fell down because of an extremely slippery floor

E. Changes in fire conditions and crew affects
   1. Ladder 451 set PPV at the front door for horizontal ventilation, improving visibility on the first floor
   2. The IC directed the fire fighters from A-451 to conduct a primary search of the first floor
      a) They got on their hands and knees
      b) Smoke conditions had deteriorated

PRESENTATION	APPLICATION
c) Took one crawling step and fell through the floor 3. The entire foyer area became engulfed in fire 4. E-451's crew exited the basement, jumped over the fire area, and exited the front door 5. Another crew outside the structure sprayed water in the opening darkening down the flames F. Rescue efforts 1. The injured fire fighter was exposed to extreme heat conditions and took refuge against a block wall, calling for "Mayday" four times 2. She was able to stand up, melting her facemask, but pushed her way though the debris and into an adjoining room a) She was assisted out a window by crews outside 3. The IC activated RIC after hearing the "Mayday" call a) The RIC entered the basement by a set of stairs in the garage 4. Other crews entered through windows on the C-side	
5. Crews not assigned to RIC should not enter the fire area a) Fire fighter accountability is critical during a RIC operation b) RICs should be properly deployed to affect the rescue 6. The basement was searched, but the room of origin was unattainable due to debris and extensive fire 7. Crews were ordered to evacuate and the operation went defensive 8. The victim was removed from the room of origin the next day	Should crews not assigned to RIC have entered the fire area?
NOTE: In the interest of learning, discuss the factors that lead to this fatality.	

PRESENTATION	APPLICATION

G. Discussion points

1. What were some critical fireground factors that affected the outcome of this incident?
2. Were there any signs of a pending fire fighter emergency?
3. What role did construction of the building have on this event?
4. What are some characteristics of basement fires that we need to take into consideration?
5. What RIC assignments should be made prior to and at the time of the fire fighter emergency?
6. If you were the Safety Officer assigned to this incident, what would be your major concerns?

IV. CASE STUDY #2 – FATALITY - CALIFORNIA, MARCH 8, 1998, 0220 HOURS

A. Situation

1. Fire in a one-story commercial structure
2. Initial crews arrived within two minutes of alarm

B. Structure information

1. Single-story commercial building
2. Approximately 6,490 square feet
3. The building measures 110-feet long by 59-feet wide
4. Contains a dog treats preparation operation
5. The roof is constructed of a wooden arched-truss
6. The building has two metal security doors in the front

C. Initial fire conditions

1. Battalion 8 and Task Force 66 (E-66, E-266, Truck 66 and Rescue 66) arrived on-scene and reported light smoke showing
2. Truck 66 crewmembers reported fire in the ceiling area while making access to the roof for ventilation and observed grayish smoke coming from a roof vent

PRESENTATION	APPLICATION

D. Initial attack

1. Forcible entry of the front security door was initiated by the T-66 inside member with the assistance of E-33
   a) It took 7½-9½ minutes to gain entry
2. E-66 pulled a 1¾" hand line and laid it out at the front door
3. E-57 arrived two minutes after the BC and task force
   a) Assigned to backup for interior operations
4. E-66 and E-46 advanced 1¾" hoselines
5. E-57 advanced a 1½" handline
6. E-33 gained access with pike poles to begin pulling ceiling
   a) They were ineffective due to the ceiling height
7. E-66 and E-46 advanced their hoselines 30-40 feet into the structure

E. Changes in fire conditions

1. Approximately 12 minutes into the incident, T-66 reports real good fire out of the roof and were exiting
2. Conditions inside begin to deteriorate
   a) Crews are unable to find the seat of the fire with rising heat conditions and no visibility
3. Battalion 13 orders all companies to withdraw due to information received from the roof and interior crews
4. E-46 Captain did not hear the order to withdraw

F. The unexpected occurred

1. The E-57 crew, lead by the Captain (victim), begin to exit the structure
   a) They lose contact with one another several times
2. The E-57 Captain gets detached from his company
3. The two E-57 FFs follow the hoseline in the wrong direction taking them back to the nozzle before

PRESENTATION	APPLICATION

turning around and finding their way out by following their engineers flashlight

a) Once outside, the FFs determine the Captain is still inside

4. A E-33 FF becomes lost and activates his radio's emergency button, which advised dispatch that he is in trouble
5. The rest of the E-33 crew had already exited the structure
6. The E-33 Captain re-enters the structure, finds the lost FF, and escorts the FF out of the structure
7. Division 2 Division Chief arrives on-scene and assumes command
8. At approximately 0242, the roof over the A-side entry collapses
9. About the same time, E-33 Captain advises the IC that E-57 Captain was missing and still inside
10. The IC asks companies on-scene for the status of E-57

G. Rescue operations

1. Due to heavy fire conditions on the A-side, E-15, who was assigned to RIC, proceeded to a rollup door on the C-side that has already been opened by T-66 inside member
2. By 0246 hours, personnel involved in the rescue attempt could not gain access due to worsening conditions

a) The IC ordered T-66 to start ladder pipe operations

3. At 0254 hours, E-15 (RIC) attempted to notify the IC that they found E-57 Captain inside the structure
4. At 0256 hours, the IC ordered T-66 to stand down on ladder pipe operations
5. At 0257 hours, an alert tone was generated by the command center

PRESENTATION	APPLICATION

6. At 0258 hours, E-15 (RIC) was able to update the IC, advising that they were exiting the structure with E-57 Captain
    a) Rescue 66 started advanced life support and transported the victim to the hospital

NOTE: In the interest of learning, discuss the factors that lead to this fatality.

H. Discussion points

1. What was the risk – gain analysis of this event?
2. What were some critical fireground factors that affected the outcome of this incident?
3. Were there any signs of a pending fire fighter emergency?
4. Does your organization have a guideline on the size of attack lines you use on commercial fires?
5. How would you organize the rescue for this incident?
6. What resources would you request as soon as you knew you had a fire fighter emergency?

V. CASE STUDY #3 – FATALITY AND INJURIES – ARIZONA, MARCH 14, 2001, 1654 HOURS

A. Situation

1. Large, single–story supermarket
2. Initial reports or a dumpster fire, one engine initially dispatched

B. Structure information

1. One-story supermarket, L-shaped
2. 27,905 square feet
3. Masonry block walls with steel beams and posts
4. Roof system of open web steel trusses covered with wood, foam and tar asphalt roofing
5. Part of strip mall

PRESENTATION	APPLICATION

C. Initial fire conditions
   1. Hazmat 4 (self-dispatched) first on-scene reported power lines above burning cardboard compactor
   2. Balance of alarm requested
   3. Fire had extended into supermarket storage area

D. Initial attack
   1. Command established by Engine 24, Hazmat 4 evacuated civilians
   2. B/C 3 arrived and assumed command
   3. Power company contacted to shut off power lines above fire
   4. Ladder 24 assigned to roof
   5. Engine 14 with victim entered to search for fire extension and civilians
   6. A full first alarm is requested

E. Changes in fire conditions
   1. The conditions continue to deteriorate with increase of smoke and heat
   2. More resources are requested

F. The unexpected occurred
   1. Captain on Engine 14 orders his crew together and to follow the hose line out due to low air
   2. The engineer leads the way out, followed by two fire fighters and, finally the captain
   3. The two fire fighters fall and get separated from the line
   4. The captain exits to learn two of his crew are missing
   5. The lost fire fighters call "Mayday"
   6. One of them makes it out with assistance of another crewmember, but is injured by smoke inhalation
   7. The second fire fighter remains lost and cannot find his way out before running out of air

PRESENTATION	APPLICATION

G. Rescue operations

1. RIC is dispatched and they find a lost fire fighter
   a) Not determined until he is out of the building that this is not the lost fire fighter they were looking for
2. Multiple RICs are cycled in and must retreat due to low air
3. Command orders defensive operations
4. Safety officers at rear entrance control entry teams
5. The victim is found but is disoriented, fights off his rescuers and retreats into the building
6. Victim is found again without pulse and is removed
7. Four other fire fighters are injured, one critically

NOTE: In the interest of learning, discuss the factors that lead to this fatality.

H. Discussion points

1. What indicators were present that could have led to different deployment during this event?
2. How would you have organized the rescue?
3. How would you organize the communications to manage this rescue and the fire?
4. Are your SOGs adequate to handle a situation like this?
5. As an incident commander, when do you determine not to send any more victims into the building and how do you enforce that decision?
6. There were more than 100 personnel on this incident
   a) Is your accountability system able to handle the resources that will arrive at a major incident?

Summary:

Learning from the NIOSH investigation reports is one way to prevent similar tragic losses from occurring in the future. The fire fighters who were injured or died while performing their sworn duties were dedicated individuals willing to give their lives for those of others.

Evaluation:

The student will complete the activity at a time determined by the instructor.

Assignment:

None.

Individual Activity 3-1: Fire Fighter Fatality And Injury Case Study Analysis

Time Frame: Preassignment

Materials Needed:

- Command and Control of the RIC Deployment Student Manual, SFT, 2010 Edition, Topics 1-3: Fire Fighter Line-of-duty Deaths and Injury Case Studies
- Fire Fighter Fatality and Injury Analysis Matrix
- Pen or pencil

Introduction: This activity provides the students the opportunity to develop a better understanding of why these tragic situations occurred and learn from the mistakes of others.

Directions:

1. Review the Fire Fighter Fatality and Injury Analysis Matrix. Pay particular attention to the critical factors to be analyzed.
2. Read case studies 1, 2, and 3 to complete this assignment. However, students will participate in simulations using case studies 1, 2, 4, 5, and 6 and need to review all six case studies.
3. Complete the matrix as described below. Document your findings for each of the critical factors in the matrix using the following variables:

   2 = Did Contribute to Risk
   1 = Did Not Contribute to Risk
   0 = Inadequate Information to Determine A Finding

4. Once you have entered the corresponding variable for each of the three case studies, enter the total number of case studies indicated as "Contributing to Risk" (given a "2") in the FINDINGS column.
5. Findings of two or more represent common critical factors may have resulted in the fire fighter(s) injury or fatality. Findings totaling two or less would not be a critical factor.

   FINDINGS ≥2 = Shows Pattern of Critical Factors

   FINDINGS ≤1 = No Pattern or Critical Factors

6. Bring your completed matrix to class and be prepared to discuss your findings.

Example

Facts	1	2	3	FINDINGS
Dispatch Information Communicated	2	2	1	2

INSTRUCTOR ANSWER KEY				
FIRE FIGHTER FATALITY AND INJURY ANALYSIS MATRIX				
CRITICAL FACTORS	**CASE STUDY**			**FINDINGS**
	1-WI	**2-CA**	**3-AZ**	
Facts				
Dispatch information communicated	0	0	0	**0**
Inadequate information in the case studies to determine a pattern of critical factors.				
Size up conducted properly	2	2	2	**3**
All of the case studies indicated that a lack of proper size up might have contributed in making poor strategic decisions.				
Risk assessment conducted properly	2	2	2	**3**
All of the case studies indicated that a risk assessment was not conducted properly and may have contributed in making poor strategic decisions.				
Communications utilized properly	2	2	2	**3**
All of the case studies indicated that communication problems did contribute.				
Policies and/or SOPs followed	2	1	1	**1**
Only the Wisconsin case study indicated that department policies and/or SOPs were not adhered to and may have contributed.				
Incident command established properly	2	1	1	1
Only the Wisconsin case study, the failure to initiate incident command was a factor.				
Accountability maintained	2	2	2	**3**
In all case studies, fire fighter accountability was a factor.				
Probabilities				
Strategic objectives properly defined	2	2	1	**2**
In two studies, the IC did not properly define the strategic objectives for the companies on scene.				
Reflex times considered	2	2	1	**2**
In two studies, the ICS and/or personnel on scene did not properly take into account fire company reflex time.				
Structural deficiencies considered	2	2	1	**2**
In two studies, the incident commander and/or personnel on scene did not consider the structural deficiencies and the impact it would have on interior operations.				

INSTRUCTOR ANSWER KEY				
FIRE FIGHTER FATALITY AND INJURY ANALYSIS MATRIX				
CRITICAL FACTORS	**CASE STUDY**			**FINDINGS**
	1-WI	**2-CA**	**3-AZ**	
Fire growth and intensity anticipated	2	2	2	**3**
In all the case studies, the incident commander and/or personnel on scene did not anticipate how quickly the fire would grow and spread throughout the structure.				
Fire spread/structural impact anticipated	2	2	2	**3**
In all studies, the IC and/or personnel on scene did not anticipate how quickly the fire would spread throughout the structure and its impact on the structural members.				
Threat to life and property evaluated	2	2	1	**2**
In two studies, neither the IC nor fire fighting personnel properly size up the amount of heat/ smoke and the impact it would have on trapped civilians and personnel entering each structure.				
Weather conditions considered	0	0	0	**0**
The weather conditions were not factors in these studies.				
Water supply and fire flow adequate	1	2	1	**1**
In only one case, was water supply a factor.				
Fire attack and ventilation coordinated	1	1	1	**0**
Coordination of ventilation with fire attack was not a critical factor in these case studies.				
Own Situation				
Incident command and control adequate	2	2	1	**2**
In two case studies incident command and control was not adequate.				
Fire-fighting training, experience and performances	1	1	1	**0**
Training and experience was not a factor in these case studies.				
Staffing levels adequate	1	1	1	**0**
Staffing levels were not a factor in these case studies.				
Rapid intervention crew trained/in place	1	2	1	**1**
In only one of the case studies a RIC was not in place or properly designated before making entry into the structure for fire suppression or search and rescue.				

INSTRUCTOR ANSWER KEY				
FIRE FIGHTER FATALITY AND INJURY ANALYSIS MATRIX				
CRITICAL FACTORS	**CASE STUDY**			**FINDINGS**
	1-WI	**2-CA**	**3-AZ**	
Personnel survival training adequate	2	2	1	**2**
In two of the case studies fire fighter survival training was not adequate enough to provide for a good outcome.				
Emergency traffic procedures understood and followed	1	2	1	**1**
In only one study was understanding and/or following a fire fighter emergency procedure a factor.				
Mutual aid capabilities	0	0	0	**0**
Was not a factor in any of the case studies.				
Search techniques conducted properly	1	2	2	**2**
In two of the case studies search techniques were a factor.				
Thermal imaging camera utilized properly	2	2	0	**2**
TICs were known to be used in two of the case studies. Information about TIC use was not available in the third case study.				
Decisions				
Decisions made with life hazard as primary objective	2	2	2	**3**
In all three of the case studies civilian live hazards were a primary objective without due regard for fire fighter life hazards.				
Overall scene management	2	2	1	**2**
In two of the case studies, scene management was a factor.				
Plan of Operation				
Strategy clearly defined and understood by personnel on scene	2	2	1	**2**
In two of the case studies, strategic objectives were either not clearly defined or understood by personnel on the scene.				
Tactical objectives understood	2	2	1	**2**
In two of the case studies tactical objective were either not clearly defined or understood by personnel on the scene.				

Name: _____ Date: _____

FIRE FIGHTER FATALITY AND INJURY ANALYSIS MATRIX				
CRITICAL FACTORS	**CASE STUDY**			**FINDINGS**
	1-WI	**2-CA**	**3-AZ**	
Facts				
Dispatch information communicated *Inadequate information in case studies.*				
Size up conducted properly				
Risk assessment conducted properly				
Communications utilized properly				
Policies and/or SOPs followed				
Incident command established properly				
Accountability maintained				
Probabilities				
Strategic objectives properly defined				
Reflex times considered				
Structural deficiencies considered				
Fire growth and intensity anticipated				
Fire spread/structural impact anticipated				
Threat to life and property evaluated				
Weather conditions considered *Inadequate information in case studies.*				
Water supply and fire flow adequate				
Fire attack and ventilation coordinated				

FIRE FIGHTER FATALITY AND INJURY ANALYSIS MATRIX				
CRITICAL FACTORS	CASE STUDY			FINDINGS
	1-WI	2-CA	3-AZ	
Own Situation				
Incident command and control adequate				
Fire-fighting training, experience and performances				
Staffing levels adequate				
Rapid intervention crew trained/in place				
Personnel survival training adequate				
Emergency traffic procedures understood and followed				
Mutual aid capabilities				
Search techniques conducted properly				
Thermal imaging camera utilized properly				
Decisions				
Decisions made with life hazard as primary objective				
Overall scene management				
Plan of Operation				
Strategy clearly defined and understood by personnel on scene				
Tactical objectives understood				

COMMAND AND CONTROL OF THE RIC DEPLOYMENT

Topic: 4: Command Awareness And Managing A RIC Deployment

Time Frame: 1:30

Level of Instruction: Level II

Authority: State Fire Marshal

Behavioral Objective:

Condition: Given an activity

Behavior: The student will describe and apply the methods of command and control of a RIC deployment

Standard: With a minimum 100% participation on Group Activity 4-1

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- Group Activity 4-1: Command and Control RIC Deployment Exercises
- Message cards (Appendix E)

References:

- ICS-910: Firefighter Incident Safety and Accountability Guidelines, FIRESCOPE, July 2008
- Rapid Intervention Company Operations, Mason and Pindelski, 2006 Edition, Chapter 3

Preparation: Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

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PRESENTATION	APPLICATION
	What are some traits of an effective IC you have seen in practice?

I. TRAITS OF AN EFFECTIVE INCIDENT COMMANDER

A. Remains calm, thinks clearly, acts decisively

B. Establishes acceptable level of risk through a risk management plan

1. Declares a strategic operational mode that matches the fire situation
2. Has clear trigger points for change in operational mode
   a) Primary and secondary searches
   b) Hazards due to building construction and occupancy classification
   c) Effectiveness of ventilation
   d) Limitations of resource capacity, water, apparatus, and personnel
   e) Time management based on known resource capability
3. Use of Safety Officer(s)
   a) Eyes and ears of the IC
   b) Identify overall scene safety
   c) Confirms level of risk and risk management plan are in concert with operations
      1) Risk a lot to save a lot
      2) Risk a little to save a little
      3) Risk nothing to save nothing

C. Communicates clearly

1. Manages ongoing progress reports
2. Keeps ICP free of distractions
3. IC must remain focused on incident
   a) Use of Incident Dispatch Technician at ICP to monitor radios so messages aren't missed

PRESENTATION	APPLICATION

D. Is prepared for the next level of intensity of an incident
   1. Is the IC ready to manage a RIC deployment?
   2. This training will help identify what other support roles the IC will need to depend upon

E. Maintains personnel accountability
   1. Assigns appropriate ICS positions to maintain an appropriate span of control
   2. Tracks all personnel operating at the incident
   3. Conducts personnel accountability reports (PAR)
   4. Prohibits freelancing

F. Constantly evaluates the Conditions, Actions, and Needs of the incident (CAN)
   1. What are the fireground conditions?
      a) Are they improving or deteriorating?
      b) Status quo or holding actions are false assumptions
         1) Things are either getting better or worse
         2) Adjust the plan accordingly
   2. Are actions appropriate to the operational objectives?
      a) Are the actions appropriate to the risk management plan?
      b) Are the tactics safe and effective?
   3. Are the needs of the incident being met?
      a) Communications and control needs
      b) Resource needs filled
      c) Safety concerns addressed

PRESENTATION	APPLICATION
	What are some signs an IC is losing control of an incident?

II. WARNING SIGNS OF AN IC LOSING CONTROL

A. When the IC's information needs are not being met, the potential for personnel to get into trouble increases

B. If communications is not effective, the IC is no longer driving the incident, the incident will drive them

C. Loss of personnel accountability

1. Span of control becomes unmanageable
2. When the IC is overwhelmed with resources they can lose track of the incident
3. Personnel get "lost" and the IC is surprised by RIC deployments

D. Lack of clear progress reports leads to the IC operating in an information vacuum

E. Poor time management

1. Due to the IC being too focused on one aspect of the incident they lose track of how long crews are operating in dangerous conditions
2. Or they lose track of fire conditions related to the structure, leading to structural collapse on crews operating in areas they should not have been assigned

F. The IC may lose realistic expectation with regard to crew workloads

G. Frustration sets in due to lack of progress and loss of incident control

1. Can lead to poor decision making
2. Increases the risk of a possible fire fighter emergency

H. As warning signs are missed, crew safety is compromised

PRESENTATION	APPLICATION

III. PREDEPLOYMENT

A. Establish command

1. Follow protocol
2. Assign a RIC
   a) As staffing permits, assign a RIC Group Supervisor
   b) If the RIC is deployed for rescue, a RIC Group Supervisor must be assigned
   c) RIC Group Supervisor will request resources to support deployment

B. Maintain lines of communication with the RIC

1. Know who is in charge of the RIC
2. Know location of RIC
3. Know limitations of RIC
4. Confirm RIC is softening the building

C. Accountability system must be in place and functioning

1. The IC must know who is on the scene and where each person is at all times
2. May want to assign this responsibility to an Accountability Officer

D. A well-designed and organized fireground will help reduce the need to deploy RIC and, if deployed, will help the RIC to be successful

E. Be aware of fire indicators that can lead to a potential RIC deployment

1. Prolonged burn time
2. Smoke showing through walls
3. Extensive structural damage
4. Inadequate ventilation, flammable gas accumulation
5. Sagging floors, bulging walls, interior collapse
6. Water discharging between bricks, excess water in the building

PRESENTATION	APPLICATION
7. Two or more floors involved in fire 8. Unprotected steel, direct flame impingement of structural components	
	How are you going to manage your resources during this high stress event?
IV. RIC DEPLOYMENT CONTROL SHEETS	
A. All officers must understand critical fireground factors	
B. Review IC/Operations Section Chief RIC Worksheet	
1. Predeployment	
2. Deployment	
3. Post Deployment	
C. Review RIC Group Supervisor RIC Worksheet	
1. Predeployment	
2. Deployment	
D. Review RIC Group Supervisor Air Management Worksheet	
1. RIC Company by Unit Designator	
2. Times	
3. PAR, Knots, Air	
4. PAC/CAN	
V. DEPLOYMENT	
	When does a fire fighter declare an emergency?
A. When a fire fighter or a member of his/her team is lost, trapped, injured, or in need of immediate assistance he/she must declare a fire fighter emergency	
B. When a fire fighter emergency is called, all other radio traffic must be minimized	
C. The IC states, "All units standby. Go ahead with your Emergency Traffic"	

PRESENTATION	APPLICATION
D. Fire fighter gives CAN and LUNAR report 1. CAN = Conditions, Actions, Needs 2. LUNAR = Location, Unit ID, Name of fire fighter in distress, Assignment, Radio channel	What is CAN and LUNAR?
E. IC deploys RIC and documents their deployment time	
F. IC asks fire fighter about injuries, air supply, and to describe surroundings (from slide)	
G. IC advises fire fighter to stay calm, activate personal alarm device, turn on flashlight, and stay on current radio frequency	
H. After acknowledgement by IC of information, the fire fighter activates the personal alarm device	
I. IC initiates an emergency alert tone/signal to alert all personnel on the incident an emergency message is forthcoming 1. Advises all personnel on the incident of the situation and to standby for assignments. a) Units must not self-deploy b) A unit may advise IC if they are in position to assist, however radio discipline is critical during these operations c) These restrictions are not to preclude rescue, but to provide for incident coordination and avoid adding more victims to the incident d) Fire-fighting positions are not to be abandoned to attempt rescue as that may lead to higher risk to personnel in distress and the RIC	
J. IC must acknowledge emergency traffic, announce radio silence, collect data from distressed fire fighters, provide direction to distressed fire fighter and redesign the incident from a structure fire to a high priority rescue event 1. Conduct a PAR of all personnel on-scene	

PRESENTATION	APPLICATION
2. Additional alarms must be called as well as ALS units based on the size and complexity of the event 3. All operational radio traffic must be moved to a frequency not involved with the RIC deployment a) RIC operations should stay on the frequency of the distressed fire fighter 4. Check with operational units near the distressed fire fighter to determine if there is a unit close by that can provide rapid assistance K. Establish a Rapid Intervention Crew Group Supervisor (RGS) or Branch 1. Assign a Chief Officer or Company Officer when arrival of additional Chief Officers will be delayed a) Must be someone trained and equipped to handle a high stress assignment b) IC provides information and resources c) The RGS will need enough resources to cycle multiple RICs in and out to accomplish the rescue d) RGS will coordinate multiple RICs e) IC should consider multiple RGSs if a single RGS cannot control the RIC companies that are deploying from multiple entry points on large structures	What are the RGS's responsibilities?
L. RGS responsibilities 1. Obtain a briefing from IC a) What are conditions of incident? b) What actions have been taken? c) What is the initial rescue plan? d) Where did the RIC deploy? e) Where do we think the distressed fire fighter(s) are located?	

PRESENTATION	APPLICATION

2. Confirm communications plan
3. Develop plan and back-up plans; communicate to crews
4. Determine building construction and occupancy
5. Determine location of all resources on incident
6. Assemble RIC resources
7. Confirm ALS resource availability
8. Continue/enhance building softening specific to rescue
9. Document all RIC/RGS activities
10. Consider use of an Accountability Officer or "Gatekeeper" at each RIC deployment point to assist the RGS with status keeping of the deployed and on-deck crews
11. Consider the use of a scribe to assist with tracking and air management of the deployed RIC companies
12. Companies assigned to the RGS keep their standard company designator
    a) In cases where multiple companies may share the same company designator (auto and mutual aid incidents), the RGS may redesignate RIC resources

M. IC must redeploy the operational resources to protect the fire fighters in distress and the RIC

1. Evaluation of risks to all personnel must continue throughout the incident
   a) Potential for structural collapse
   b) Potential for fire extension, etc.
2. Effectiveness of operations must be evaluated
   a) Fire-fighting positions must not be abandoned
   b) Reinforce positions with emphasis to protect rescue effort
   c) IC may need to write-off portions of the building to protect rescue effort

PRESENTATION	APPLICATION
d) IC may need to suspend rescue operations if fire conditions cannot be contained and additional fire fighters are in jeopardy 3. Expand the ICS to meet the needs of the new situation a) Safety Officers b) RIC Group Supervisor c) Operations Section Chief d) Assistant to the IC e) Rehab Group f) Public Information Officer	
VI. POST DEPLOYMENT CONSIDERATIONS	
A. Chief Officers need to consider how a fire fighter emergency event may have negatively affected the organization 1. This will vary based on the extent of the incident, the success of the rescue efforts, and how well prepared the organization is to deal with trauma 2. Effective communication throughout the organization is critical B. Develop a relief schedule for all affected crews C. Assign a Chief Officer to manage critical incident stress debriefing resources D. Secure and bag all equipment from rescued fire fighters 1. SCBA 2. PPE E. Ensure Chief Officers from all agencies that participated in a fire fighter emergency event have been notified F. Injuries to fire fighters that require hospitalization will require Cal/OSHA notification	How has this event affected my organization?

PRESENTATION	APPLICATION

G. Continue structural evaluation

H. Establish a Welfare Officer

1. Fire department representative to hospital
2. Fire department representative to support family
   a) Transport
   b) Meal and spiritual support

I. Assign a team to develop full investigative report

VII. ADDITIONAL CONSIDERATIONS

A. If structural stability is part of rescue problem consider use of USAR resources

B. Assign an Assistant Safety Officer to the RGS

C. Co-locate RGS with appropriate Division Supervisor

D. Establish a Medical Unit and a treatment area

E. Do not allow media access that will allow identification of injured fire fighters (HIPAA)

COMMAND AND CONTROL OF THE RIC DEPLOYMENT

Summary:

Strong command and control is a crucial link to the success of any fire fighter emergency event. Our personnel will become individual resources unless we are prepared to manage them as effective rescue crews to meet the needs of their fallen comrades. Chief Officers must plan and practice these principles to achieve effective results when one of our incidents becomes our emergency.

Evaluation:

The student will complete the activity at a time determined by the instructor.

Assignment:

None.

GROUP ACTIVITY 4-1: COMMAND AND CONTROL OF A RIC DEPLOYMENT

Time Frame:	3:00
Materials Needed:	• Incident Command RIC Worksheet • RGS RIC Worksheet • RGS Air Management Worksheet • Assignment Actions Checklists • Pen or pencil • White board or easel paper and easel • Colored markers • Two-channel portable radios (6 minimum)
Introduction:	These exercises are based on case studies reviewed during the course. Each exercise requires five students to assume various roles necessary to safety perform a fire fighter rescue.
Directions:	1. It will take 30 minutes to prepare for the exercise process. 2. You will be provided worksheets to assist with managing the RIC operation and a portable radio to communicate with one another. Face-to-face communication should be used when appropriate. 3. Each member of your assigned group must assume one of the five roles: ▪ Incident Commander ▪ RIC Group Supervisor ▪ RIC Leader ▪ Division/Group Supervisor ▪ Downed fire fighter 4. Each exercise is designed to be conducted in real time, but should not take more than 30 minutes, including critique time. 5. The exercise will start when the downed fire fighter calls for Emergency Traffic and issues a fire fighter emergency. 6. Base your actions on the scenario provided. Remember these exercises are based on actual incidents that resulted in fire fighters being injured or killed. 7. Your performance will be graded. An individual performance sheet will be provided to you for future reference. These exercises are to begin your preparation for an actual incident. Additional training should occur when done with this course.

Assignment Actions Checklists

Incident Commander

- ❒ Declared emergency traffic to alert fireground of a fire fighter emergency.
- ❒ Moved nonaffected units to a secondary fireground channel.
- ❒ Received LUNAR report from trapped fire fighter.
- ❒ Conducted PAR.
- ❒ Immediately requested additional alarms.
- ❒ Committed and briefed RIC on the situation.
- ❒ Changed plan to high priority rescue operation.
- ❒ Withdrew companies from affected areas as needed.
- ❒ Reinforced fire-fighting positions.
- ❒ Opened and unlocked all doors.
- ❒ Ventilated to maintain tenability.
- ❒ Provided additional lighting.
- ❒ Closely coordinated and controlled search efforts.
- ❒ Monitored structural integrity.
- ❒ Maintained strong control of incident and crews.
- ❒ Controlled the media.
- ❒ Assigned aids to monitor radio channels.
- ❒ Made special call for additional officers.

RIC Group Supervisor

- ❒ Reported to IC for briefing.
- ❒ Designated a staging area for equipment.
- ❒ Confirmed fireground operations radio channel and RIC radio channel.
- ❒ Confirmed location of fire and volume.
- ❒ Confirmed expected fire extension.
- ❒ Confirmed where fire companies are operating.
- ❒ Confirmed how long the fire companies have been operating.
- ❒ Determined what progress has been made.
- ❒ Communicated with trapped fire fighter(s) and received updated LUNAR reports.
- ❒ Communicated with RIC Group Supervisor and monitored entry time (air aware, timely CAN reports).

RIC Leader

- ❒ Received briefing from RIC Group Supervisor.
- ❒ Confirmed fireground operations radio channel and RIC radio channel.
- ❒ Confirmed location of fire and volume.
- ❒ Confirmed expected fire extension.
- ❒ Confirmed where fire companies are operating.
- ❒ Confirmed how long the fire companies have been operating.
- ❒ Determined what progress has been made.
- ❒ Compiled RIC equipment cache.
- ❒ Communicated with RIC Group Supervisor entry time, PAR, lowest air level.
- ❒ Communicated CAN reports.
- ❒ Monitored air usage and work time before egress.

Division/Group Supervisor

- ❒ Received assignment and companies assigned from IC.
- ❒ Confirmed fireground operations radio channel and RIC radio channel.
- ❒ Confirmed location of fire and volume.
- ❒ Confirmed expected fire extension.
- ❒ Confirmed where fire companies are operating.
- ❒ Confirmed how long the fire companies have been operating.
- ❒ Determined what progress has been made.
- ❒ Communicated and supervised companies assigned to the division.
- ❒ Monitored building and fire conditions.
- ❒ Coordinated with ventilation group or division.

Lost/Trapped Fire Fighter(s)

- ❒ Communicated an emergency traffic to Command.
- ❒ Utilized portable radio emergency button (if equipped) to the Command Center or Dispatch.
- ❒ Communicated a LUNAR report to the IC.
- ❒ Prepared to communicate on any channel.
- ❒ Activated PASS device between communications.
- ❒ Continued to search for a way out.
- ❒ Moved to safe refuge area when needed.
- ❒ Took a resting position near wall, doorway, or hallway.
- ❒ Controlled breathing (skip breath), stayed calm, conserved air, monitored air levels.
- ❒ Pointed flashlight toward ceiling and used tools to indicate position.
- ❒ Provided RIC Group Supervisor updated LUNAR reports when necessary.

CASE STUDY #1: WISCONSIN EXERCISE MESSAGES			
#	**Clock**	**Assignment**	**Condition - Task**
1	0:00	Trapped FF - [A451]	A451 FF#2 initiates emergency traffic. Two FFs from A451 are down in the basement and separated from one another.
2	0:30	IC - [BC1]	Acknowledge emergency traffic. Initiate proper actions. Channel change. Assign E453 as RGS. Request second alarm.
3	1:00	RGS -[E453]	Brief E453 Engineer to lead RIC with both E53 FFs plus two E455 FFs to RIC deployment.
4	1:30	Trapped FF - [A451]	Moving toward window in the basement. Unknown location of second FF.
5	2:00	RGS -[E453]	Request three additional companies assigned to RIC. Communicate with Trapped FF.
6	2:30	IC - [BC1]	Acknowledge RIC request. L451 now assigned. Second alarm companies when they arrive on scene. Request a third alarm.
7	3:00	Interior Division - [E455]	Advise heavy fire on basement C-side. Two 1¾" lines in place in basement. Initiating knock down. Need two more companies.
8	3:30	RIC 1 - [E453]	Entering basement through stairs in garage. PAR 5.
9	4:00	Interior Division - [E455]	Crews encountering heavy debris in the basement.
10	4:30	Trapped FF - [A451]	Located basement window. Do not know which side of the building. Cannot find partner from A451 (FF#1).
11	5:00	RGS	Copy traffic. Update IC. Send A451 to B-side of basement for 2nd access point.
12	5:30	Interior Division - [E455]	Copy RIC Group Supervisor traffic. Sending crews to basement windows. Little progress on fire. Conditions worsening.
13	6:00	RIC 1 - [E453]	Two knots in. Slow progress. ¾ air. PAR 5. Heavy debris. High heat. Conditions deteriorating.

CASE STUDY #1: WISCONSIN EXERCISE MESSAGES			
#	**Clock**	**Assignment**	**Condition - Task**
14	6:30	RGS -[E453]	Copy traffic. Advise IC.
15	7:00	IC - [BC1]	Copy traffic. Advise E301 and 302 assigned to RIC.
16	7:30	RIC 1 - [E453]	Located one trapped A451 FF trying to exit B-side basement window. Attempting extrication through window with outside crews. Request medics.
17	8:00	RGS -[E453]	Copy traffic from RIC 1 - E453. Request update on second lost fire fighter. Advise IC.
18	8:30	RIC 1 - [E453]	No progress. Too much debris, heat, and smoke. Backing out. ½ tank air. PAR 5.
19	9:00	Interior Division - [E455]	Backing out all crews at PAR. Advise transition to defensive operation.
20	9:30	IC - [BC1]	Order evacuation. PAR on all companies.

CASE STUDY #2: CALIFORNIA EXERCISE MESSAGES			
#	**Clock**	**Assignment**	**Condition - Task**
1	0:00	Interior Division - [E34]	Advise IC conditions deteriorating on the inside. Order an evacuation of the structure.
2	0:30	IC - [BC13]	Acknowledge the evacuation order. Request PAR from Interior Division when all companies out.
3	1:00	Interior Division - [Capt E34]	Operating on A-side. All crews at PAR except E57 Captain missing.
4	1:30	[E57 Captain]	Issue emergency traffic. Give LUNAR. Believe he is near the rear of the building.
5	2:00	IC - [BC13]	Initiate Emergency Traffic actions. Assign E15 to RGS. Change radio channel.
6	2:30	RGS - [E15]	Acknowledge assignment. Request four additional units. Identify deployment location as C-side rollup door.
7	3:00	IC - [BC13]	Assign E33 crew, E34 crew, and Rescue 866 to RGS.
8	3:30	Interior Division - [Capt E34]	Advise IC. E66 and E46 operating large handlines at the C-side rollup door. RIC has good access from C-side.
9	4:00	[E57 Captain]	Advise RGS. ¼ air. Entangled in debris near C-side. Exact location unknown.
10	4:30	RGS - [E15]	Deploy E15 crew (PAR 4). E33 (PAR 4) crew on deck. Assign T66 to check secondary access for RIC companies. Request from IC lighting at the rear of the building.
11	5:00	IC - [BC13]	Acknowledge lighting request. Make assignment.
12	5:30	RGS - [E15]	Make contact with E57 Captain. Provide update and direction.
13	6:00	Interior Division - [Capt E34]	Companies operating on C-side appear to be holding fire. Conditions inside improving.
14	6:30	RIC 1 - [E15]	Advise RGS. Two knots in. ¾ air. PAR 4. Heavy debris and smoke conditions. Slow progress.

CASE STUDY #2: CALIFORNIA EXERCISE MESSAGES			
#	**Clock**	**Assignment**	**Condition - Task**
15	7:00	IC - [BC13]	Request update from RGS. Assign ambulance crew to C-side for RGS. Consider additional alarm.
16	7:30	[E57 Captain]	Running out of air. PASS and flashlight on. Request crews to hurry.
17	8:00	RGS - [E15]	Acknowledge message from Captain 57. Provide necessary support.
18	8:30	RIC 1 - [E15]	Advise RGS. Three knots in. ½ air. PAR 4. Hear PASS device ahead.
19	9:00	RGS - [E15]	Launch next RIC Crew (E33). Advise RIC 1 that E15 to secure large area search rope and head back out.
20	9:30	RIC 2 - [E33]	Acknowledge RGS. Advise when on air.
21	10:00	RGS - [E15]	Assign next on deck RIC (E34) and (R866).
22	10:30	RIC Crew Captain - [T66]	Advise RGS no secondary access point for RIC.
23	11:00	RGS [E15]	Acknowledge T66. Direct them to return to RIC deployment point on C-side.
24	11:30	RGS - [E15]	Attempt multiple contacts with Captain 57.
25	12:00	[E57 Captain]	No reply for remainder of the exercise.
26	12:30	Interior Division - [Capt E34]	Report fire still burning near A-side. Crews report hearing a PASS device inside but cannot locate source.
27	13:00	RIC 2 - [E33]	Two knots. ¾ air. PAR 4. Just passed E15 on the way out.
28	13:30	RGS - [E15]	Request IC provide two more crews for RIC and a rehab unit to the C-side.
29	14:00	IC	Acknowledge request. Update from RGS. Advise RGS getting E58, E47, and Rescue 34 for rehab.
30	14:30	RGS - [E15]	Acknowledge. Provide update on deployment status.

CASE STUDY #2: CALIFORNIA EXERCISE MESSAGES			
#	**Clock**	**Assignment**	**Condition - Task**
31	15:00	RIC 1 - [E15]	Out of the building. PAR 4. Need rehab.
32	15:30	RIC 2 - [E33]	Four knots. ¾ air. PAR 4. Found Captain E57. Stand by for PAC-CAN.
33	16:00	RGS - [E15]	Copy. Launching E34. Advise IC.
34	16:30	IC - [BC13]	Advise Interior Division.
35	17:00	Interior Division - [Capt E34]	Advise IC of interior conditions. No collapse hazard. Fire controlled in deployment area. Need three additional companies.
36	17:30	RIC 3 - [E34]	On air. PAR 4 with R866 crew. Entering building. Following search line to meet with RIC 2 - E66.
37	18:00	RGS - [E15]	Place E47 on deck for deployment.
38	18:30	RIC 2 - [E33]	Provide PAC-CAN for E57 Captain. Packaging in McGuire sled for removal. ½ air. PAR 4.
39	19:00	RGS - [E15]	Copy. Advise E33 that E34 has deployed to their location. Just entering building.
40	19:30	RIC 3 - [E34]	Three knots. ¾ air. PAR 4. Should contact E33 shortly.
41	20:00	RIC 3 - [E34]	With E33. Four knots. Just under ¾ air. PAR 4. Sending E66 out. Moving toward exit with E57 Captain. Launch next RIC.
42	21:00	RGS - [E15]	Acknowledge. Launch E47. Place another unit on deck for deployment.
43	21:30	RIC 4 - [E47]	Copy. On air. Entering the building. PAR 4.
44	22:00	RIC 2 - [E33]	Advise RGS. Two knots. Less than ½ air. Heading out. PAR 4. E34 has E57 Captain.
45	22:30	RIC 4 - [E47]	Two knots. Above ¾ air. PAR 4. Passed E33 on the way out.
46	23:00	RIC 4 - [E47]	Three knots. ½ air. PAR 4. Can hear E34.
47	23:30	RGS - [E15]	Copy traffic. Advise once you meet with E34, hand off E57 Captain. E34 to start out.

CASE STUDY #2: CALIFORNIA EXERCISE MESSAGES			
#	**Clock**	**Assignment**	**Condition - Task**
48	24:00	RIC 4 - [E47]	We are with E34. Assuming control of E57 Captain. Heading out behind E34. Two knots. ¾ air. PAR 4.
49	24:30	IC - [BC13]	Request update from RGS.
50	25:00	RGS - [E15]	Provide IC update.
51	25:30	RIC 3 - [E34]	We have exited the building. PAR 4. Awaiting E47.
52	26:00	RGS - [E15]	Advise medic unit and ambulance crew to move toward exit point to receive down officer.
53	26:30	RIC 4 - [E47]	Exited building with Captain 57. Our crew is PAR 4. Turning patient care over to medic crew.
54	27:00	RGS - [E15]	Advise IC. Initiate PAR on all crews assigned to RGS.
55	27:30	IC - [BC13]	Initiate post recovery protocols.

CASE STUDY #4: VIRGINIA EXERCISE MESSAGES			
#	**Clock**	**Assignment**	**Condition - Task**
1	0:00	Trapped FF - [T12]	Call for Emergency Traffic. Provide LUNAR report. 2nd floor. D-side. T12 FF Jones. Attempting egress. Cannot find windows. Burning. Need help.
2	0:30	IC - [BC1]	Acknowledge Emergency Traffic. Take necessary actions.
3	1:00	IC - [BC1]	Assign Rescue 10 Captain as RIC Group Supervisor. Initiate appropriate radio channel change. Turn over lost FF to RGS.
4	1:30	RGS - [R10]	Brief Rescue 10 Engineer to lead RIC 1 deployment.
5	2:00	RGS - [R10]	Request 2 additional companies.
6	2:30	Interior Division - [E12]	Request additional resources to Division 1. Heavy fire.
7	3:00	IC - [BC1]	Request 2nd alarm. Advise RGS E2 and A10 are assigned to RIC Group Supervisor.
8	3:30	RGS - [R10]	Acknowledge IC traffic. Brief E2 and A10 crews.
9	4:00	RIC 1	Laddering D-side to second floor. Request fire attack support.
10	4:30	Trapped FF - [T12]	Burning. Getting hard to breathe. Air at ½ tank. Need help right now.
11	5:00	RGS	Acknowledge traffic. Calm FF. Confirm survival techniques are being used.
12	5:30	RIC 1	Two RIC members inside D-side initiating search. High heat conditions.
13	6:00	Interior Division - [E12]	Fire intensifying. Poor progress. High heat. Poor visibility.
14	6:30	RGS - [R10]	Acknowledge RIC 1 traffic. Update on Interior Division traffic.
15	7:00	Trapped FF - [T12]	Request help. Radio clarity poor.

CASE STUDY #4: VIRGINIA EXERCISE MESSAGES			
#	**Clock**	**Assignment**	**Condition - Task**
16	7:30	RIC 1	High heat. 1,300° on TIC. Unable to advance with suppression support. Ceiling coming in. We are backing out.
17	8:00	RGS - [R10]	Copy RIC Leader backing out. Advise IC.
18	8:30	RGS - [R10]	Attempt contact with down FF. No response.
19	9:00	RIC 1	Both RIC members out at PAR of 4.
20	9:30	RGS - [R10]	Make appropriate acknowledgements and advisements.
21	10:00	Interior Division - [E12]	Unable to contain fire. Evacuating all companies from the building.
22	10:30	IC - [BC1]	Make appropriate acknowledgements and advisements. Conduct PAR.

CASE STUDY #5: MARYLAND EXERCISE MESSAGES			
#	**Clock**	**Assignment**	**Condition - Task**
1	0:00	Trapped FF - [E41]	Emergency Traffic. Three FFs trapped. Give LUNAR report.
2	0:30	IC - [BC1]	Acknowledge Emergency Traffic. Initiate necessary actions.
3	1:00	IC - [BC1]	Assign E53 Captain to RGS. Request additional alarm.
4	1:30	RGS - [E53]	Brief E50 crew for RIC operations. Request three additional companies for RIC.
5	2:00	Interior Division - [E41]	E41 Captain assumes Interior Division. Attempting secondary access to structure.
6	2:30	Trapped FF - [E41]	Still trapped inside front door along with S11 FF. Unable to make contact with E41 FF Smith.
7	3:00	IC - [BC1]	Advise RIC Group Supervisor getting E44, E53, and T45.
8	3:30	RIC 1 - [E50]	Located 2 missing FFs inside the front door. E41 and S11. Provide PAC-CAN. Working to get them out. One member of E41 still missing. Will need relief company for search and rescue.
9	4:00	RGS - [E53]	Copy. Update. Make proper advisements and requests.
10	4:30	IC - [BC1]	Copy. Update. Request report on conditions from Interior Division.
11	5:00	Interior Division - [E41]	Fire being contained to second floor. High heat conditions. Poor visibility. Need ventilation.
12	5:30	RIC 1 - [E50]	Advise RIC Group Supervisor E41 and S11 FFs out of the building. PAR on company.
13	6:00	RGS - [E53]	Advise IC of situation status. Launch E53 for E41 missing FF. Request Medics.
14	7:00	Interior Division - [E41]	Visible fire knocked down. Checking attic. Need two additional engine companies to relieve interior crews.

CASE STUDY #5: MARYLAND EXERCISE MESSAGES			
#	**Clock**	**Assignment**	**Condition - Task**
15	7:30	RIC 2 - [E53]	First floor. Two knots in moving toward C-side. ¾ air. PAR. Hear PASS alarm.
16	8:00	RGS - [E53]	Copy E53. E44 on deck ready to assist.
17	8:30	RIC 2 - [E53]	PAC-CAN. Found E41 FF Smith. Unconscious. Out of air. Providing air and packaging. Have high heat with zero visibility. Three knots in. Launch next crew to assist with extrication. Were PAR.
18	9:00	RGS - [E53]	Acknowledge. Launch E44. Consider another on deck company. Update IC.
19	10:00	RIC 2 - [E53]	FF Smith packaged. On the way out to A-side. ½ bottle. PAR 4.
20	10:30	RIC 3 - [E44]	Met with E53 just past two knots. Both crews at PAR and on the way out.
21	11:00	RGS - [E53]	Copy traffic. Medic 30 on standby.
22	11:30	RIC 3 - [E44]	E44 and E53 out of the building at PAR with E41 FF Smith.
23	12:00	RGS - [E53]	Advise IC.
24	12:30	IC - [BC1]	Acknowledge and initiate PAR on all companies.

CASE STUDY #6: PENNSYLVANIA EXERCISE MESSAGES			
#	**Clock**	**Assignment**	**Condition - Task**
1	0:00	IC - [BC1]	Civilian advises IC of a collapse in the front of the garage. Two fire fighters may be trapped.
2	0:30	IC - [BC1]	Make proper announcement. Two fire fighters possibly trapped in Division A.
3	1:00	Trapped FF - [E8 ENG]	Advise IC that you and your fellow fire fighter are trapped by debris. Other fire fighter is not responding. Provide LUNAR report.
4	1:30	IC - [BC1]	Assign Ladder 4 to RGS and Engine 9 to Exposure Group. Initiate PAR of resources on scene. Reassign tactical channel.
5	2:00	RGS - [L4]	Acknowledge RIC assignment. Request Engine 8 LUNAR. Initiate a rescue with Ladder 4 Engineer as RIC. Provide PAR. Request additional truck company.
6	2:30	Exposure Group - [E9]	Advise IC of heavy fire conditions in the C/D Division. Provide PAR. Request additional engine company to support operation.
7	3:00	IC - [BC1]	Consider requesting additional resources, you only have two resources not assigned.
8	3:30	IC - [BC1]	Advise RGS of additional resources assigned to RIC – T2.
9	4:00	RGS - [L4]	Acknowledge additional resources. Receive update from RIC.
10	4:30	RIC – [L4 CREW]	Provide RGS with CAN report. In process of removing engineer from debris. Fire fighter still trapped. Request additional personnel.
11	5:00	RGS - [L4]	T2 assigned to RIC, use as necessary. Request additional resources.
12	5:30	IC - [BC1]	Assign resources if available.
13	6:00	Exposure Group - [E9]	Getting knock down on fire. Could still use additional engine.
14	6:30	IC - [BC1]	Assign resources if available.

CASE STUDY #6: PENNSYLVANIA EXERCISE MESSAGES			
#	**Clock**	**Assignment**	**Condition - Task**
15	7:00	RIC – [L4 CREW]	Gained access to Engine 8 fire fighter. He is not breathing. Extended extrication due to debris. Request air bags and ambulance on standby.
16	7:30	RGS - [L4]	Advise IC of request for air bags and ambulance.
17	8:00	IC - [BC1]	Acknowledge RGS request. Make appropriate request.
18	8:30	RIC – [L4 CREW]	Trapped fire fighter extricated. He is not breathing. Coordinate appropriate resources.
19	9:00	RGS - [L4]	Make appropriate acknowledgements and advisements.
20	9:30	IC - [BC1]	Make appropriate acknowledgements and advisements. Conduct PAR.

Appendix A: Formative Test

Name: _____ Date: _____

Each answer space is worth five points. Some questions may have more than one correct answer. You have 15 minutes to complete the entire test.

SCORING Each answer space is worth five points	Total Possible 100	80% Minimum 80	Score	Pass or Fail?

INSTRUCTIONS: Section I is a matching test. Select the one term that most nearly matches a definition. Write the letter of the term in the parenthesis that precedes the appropriate definition. There are more terms than definitions.

EXAMPLE:

TERMS: a hammer b saw c wrench

1. (___) Tool used to cut
2. (___) Tool used to drive nails

TERMS

a LUNAR
b Mayday
c Shoring
d 2-in-2-out rule
e Softening the building
f Skip breathing
g Unsupported lean-to collapse
h Backdraft

i Tactical worksheet
j Emergency air supply unit
k Buddy breathing
l Thermal imaging camera
m Wall breaching
n V-shaped collapse
o Personal accountability report
p Risk management process

q Wood-framed construction

r Accountability system
s PAC-CAN
t Walk-out basement
u Sheathing
v Flashover
w Emergency traffic

DEFINITIONS

1. (___) Collapse where one side of a building has failed and is without any support. This failed side floats freely and is very unstable and could result in a secondary collapse.

2. (___) Device that uses infrared energy technology to ascertain objects by shape in conditions that do not allow normal vision. Some models also monitor heat conditions.
3. (___) Architectural feature in the construction of a building with an elevation difference between the grades at the front the building and the back of the building.

4. (___) The penetration of a wall through various methods for the purposes of emergency egress by a lost or trapped fire fighter or entry by RIC personnel for rescue purpose.

5. (___) The process of providing multiple entry and egress points on a structure, which may include, opening locked doors, security gates, rollup doors, barred windows, etc., without affecting fire conditions inside the structure.

6. (___) A method used to recognize and then reduce the risks to fire fighters. The process includes situational awareness, hazard assessment, hazard control, decision point and evaluation.

7. (___) Acronym used by a lost or trapped fire fighter during a fire fighter emergency.

8. (___) When oxygen is introduced into an area holding superheated products of incomplete combustion resulting in an immediate ignition of the products.

9. (___) An emergency procedure in which two fire fighters share a single air source when one of them is experiencing a problem with their own source.

10. (___) A modified air supply including a face piece that is used for rapid intervention maneuvers that require a transfer of air from RIC member and a down fire fighter.

DEFINITIONS

11. (___) A system or process used to track personnel while operating on an emergency incident.

12. (___) Term used only to signify that a person is in a life threatening situation and needs immediate assistance.

13. (___) Provision in California Code of Regulations Title 8, Section 5144(g) that outlines deployment of first arriving fire personnel and provision of personnel available for their rescue if needed.

14. (___) Systematic process used by RIC personnel when they first find a downed fire fighter.

15. (___) Roll call of companies operating at an emergency incident. Commonly performed when mode of operation changes (i.e., offensive to defensive), or a significant event occurs such as a fire fighter emergency or collapse.

16. (___) Technique used by a fire fighter when lost or trapped that maximizes their SCBA air supply.

17. (___) Type of construction in which the structural members that provide framework and support are fabricated out of wood. Most common type of construction.

18. (___) Check sheet used to help keep track of the tactics employed to accomplish the strategic goals of the incident or specific operations, such as, RIC operations.

19. (___) Collapse that is caused by the failure of an interior support, resulting in void spaces on both sides of the collapse toward the bearing walls

20. (___) Process in which lumber, screw jacks, air bags, hydraulic systems are used to support weakened areas for the purpose of rescue operations.

Appendix B: Formative Test Answer Key

Each answer space is worth five points. Some questions may have more than one correct answer. You have 15 minutes to complete the entire test.

SCORING Each answer space is worth five points	Total Possible 100	80% Minimum 80	Score	Pass or Fail?

INSTRUCTIONS: This is a matching test. Select the one term that most nearly matches a definition. Write the letter of the term in the parenthesis that precedes the appropriate definition. There are more terms than definitions.

EXAMPLE:

TERMS: a hammer b saw c wrench

1. (___) Tool used to cut
2. (___) Tool used to drive nails

TERMS

a LUNAR
b Mayday
c Shoring
d 2-in-2-out rule
e Softening the building
f Skip breathing
g Unsupported lean-to collapse
h Backdraft
i Tactical worksheet
j Emergency air supply unit
k Buddy breathing
l Thermal imaging camera
m Wall breaching
n V-shaped collapse
o Personal accountability report
p Risk management process
q Wood-framed construction
r Accountability system
s PAC-CAN
t Walk-out basement
u Sheathing
v Flashover
w Emergency traffic

DEFINITIONS

1. ***(g)*** Collapse where one side of a building has failed and is without any support. This failed side floats freely and is very unstable and could result in a secondary collapse.

   Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

2. ***(l)*** Device that uses infrared energy technology to ascertain objects by shape in conditions that do not allow normal vision. Some models also monitor heat conditions.

   Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

DEFINITIONS

3. ***(t)*** Architectural feature in the construction of a building with an elevation difference between the grades at the front the building and the back of the building.

   Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

4. ***(m)*** The penetration of a wall through various methods for the purposes of emergency egress by a lost or trapped fire fighter or entry by RIC personnel for rescue purpose.

   Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

5. ***(e)*** The process of providing multiple entry and egress points on a structure, which may include, opening locked doors, security gates, rollup doors, barred windows, etc., without affecting fire conditions inside the structure.

   Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

6. ***(p)*** A method used to recognize and then reduce the risks to fire fighters. The process includes situational awareness, hazard assessment, hazard control, decision point and evaluation.

   Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

7. ***(a)*** Acronym used by a lost or trapped fire fighter during a fire fighter emergency.

   Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

8. ***(h)*** When oxygen is introduced into an area holding superheated products of incomplete combustion resulting in an immediate ignition of the products.

   Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

9. ***(k)*** An emergency procedure in which two fire fighters share a single air source when one of them is experiencing a problem with their own source.

   Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

10. ***(j)*** A modified air supply including a face piece that is used for rapid intervention maneuvers that require a transfer of air from RIC member and a down fire fighter.

    Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

11. ***(r)*** A system or process used to track personnel while operating on an emergency incident.

    Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

12. ***(b)*** Term used only to signify that a person is in a life threatening situation and needs immediate assistance.

    Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

DEFINITIONS

13. ***(d)*** Provision in California Code of Regulations Title 8, Section 5144(g) that outlines deployment of first arriving fire personnel and provision of personnel available for their rescue if needed.

    Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

14. ***(s)*** Systematic process used by RIC personnel when they first find a downed fire fighter.

    Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

15. ***(o)*** Roll call of companies operating at an emergency incident. Commonly performed when mode of operation changes (i.e., offensive to defensive), or a significant event occurs such as a fire fighter emergency or collapse.

    Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

16. ***(f)*** Technique used by a fire fighter when lost or trapped that maximizes their SCBA air supply.

    Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

17. ***(q)*** Type of construction in which the structural members that provide framework and support are fabricated out of wood. Most common type of construction.

    Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

18. ***(i)*** Check sheet used to help keep track of the tactics employed to accomplish the strategic goals of the incident or specific operations, such as, RIC operations.

    Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

19. ***(n)*** Collapse that is caused by the failure of an interior support, resulting in void spaces on both sides of the collapse toward the bearing walls

    Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

20. ***(c)*** Process in which lumber, screw jacks, air bags, hydraulic systems are used to support weakened areas for the purpose of rescue operations.

    Found in Command/Control of the RIC Deployment Student Manual, SFT, 2010, Glossary

Appendix C: Grading Sheets

Exercise Summary Sheet

EVALUATOR: _____ **CLASS DATE:** _____

PERFORMANCE STANDARD: Command and control techniques must be demonstrated by the student and evaluated by the Primary Instructor. Skills given a "P" as the grade must be performed according to the information presented during the class.

GRADE: "**P**" – Successfully met the performance standard. "**F**" – Did not meet the performance standard.

Exercise		Time	Grade	Primary Instructor Comments
1	**Student Assignments (Name)**	**0:30**	**P/F**	
Incident Commander				
RIC Group Supervisor				
RIC Leader				
Div/Group Supervisor				
Trapped FF				
2	**Student Assignments (Name)**	**0:30**	**P/F**	
Incident Commander				
RIC Group Supervisor				
RIC Leader				
Div/Group Supervisor				
Trapped FF				
3	**Student Assignments (Name)**	**0:30**	**P/F**	
Incident Commander				

COMMAND AND CONTROL OF THE RIC DEPLOYMENT

EVALUATOR: _____ **CLASS DATE:** _____

PERFORMANCE STANDARD: Command and control techniques must be demonstrated by the student and evaluated by the Primary Instructor. Skills given a "P" as the grade must be performed according to the information presented during the class.

GRADE: "**P**" – Successfully met the performance standard. "**F**" – Did not meet the performance standard.

Exercise		Time	Grade	Primary Instructor Comments
RIC Group Supervisor				
RIC Leader				
Div/Group Supervisor				
Trapped FF				
4	**Student Assignments (Name)**	**0:30**	**P/F**	
Incident Commander				
RIC Group Supervisor				
RIC Leader				
Div/Group Supervisor				
Trapped FF				
5	**Student Assignments (Name)**	**0:30**	**P/F**	
Incident Commander				
RIC Group Supervisor				
RIC Leader				
Div/Group				

COMMAND AND CONTROL OF THE RIC DEPLOYMENT

EVALUATOR: _____ **CLASS DATE:** _____

PERFORMANCE STANDARD: Command and control techniques must be demonstrated by the student and evaluated by the Primary Instructor. Skills given a "P" as the grade must be performed according to the information presented during the class.

GRADE: "**P**" – Successfully met the performance standard. "**F**" – Did not meet the performance standard.

Exercise		Time	Grade	Primary Instructor Comments
Trapped FF				
	TOTAL MINIMUM HOURS:	**2:30**		

Student Grading Sheet for Incident Commander

STUDENT: _____ **CLASS DATE:** _____

EVALUATOR: _____ **CASE STUDY #:** _____

PERFORMANCE STANDARD: Command and control techniques must be demonstrated by the student. Skills given a "Y" as the grade must be performed according to the information presented during the class.
GRADE: "**P**" – Successfully met the performance standard. "**F**" – Did not meet the performance standard.

	INCIDENT COMMANDER	Pass	Fail
1.	Declared emergency traffic to alert fireground of a fire fighter emergency.		
2.	Moved nonaffected units to a secondary fireground channel.		
3.	Received LUNAR report from trapped fire fighter.		
4.	Conducted PAR.		
5.	Immediately requested additional alarms.		
6.	Committed and briefed RIC on the situation.		
7.	Changed plan to high priority rescue operation.		
8.	Withdrew companies from affected areas as needed.		
9.	Reinforced fire-fighting positions.		
10.	Opened and unlocked all doors.		
11.	Ventilated to maintain tenability.		
12.	Provided additional lighting.		
13.	Closely coordinated and controlled search efforts.		
14.	Monitored structural integrity.		
15.	Maintained strong control of incident and crews.		
16.	Controlled the media.		
17.	Assigned aids to monitor radio channels.		
18.	Made special call for additional officers.		
Evaluator's Comments:	Final Grade:		

Student Grading Sheet for RIC Group Supervisor

STUDENT: _____ **CLASS DATE:** _____

EVALUATOR: _____ **CASE STUDY #:** _____

PERFORMANCE STANDARD: Command and control techniques must be demonstrated by the student. Skills given a "Y" as the grade must be performed according to the information presented during the class.
GRADE: "**P**" – Successfully met the performance standard. "**F**" – Did not meet the performance standard.

	RIC GROUP SUPERVISOR	Pass	Fail
1.	Reported to IC for briefing.		
2.	Designated a staging area for equipment.		
3.	Confirmed fireground operations radio channel and RIC radio channel.		
4.	Confirmed location of fire and volume.		
5.	Confirmed expected fire extension.		
6.	Confirmed where fire companies are operating.		
7.	Confirmed how long the fire companies have been operating.		
8.	Determined what progress has been made.		
9.	Communicated with trapped fire fighter(s) and received updated LUNAR reports.		
10.	Communicated with RIC Group Supervisor and monitored entry time (air aware, timely CAN reports).		
Evaluator's Comments:	Final Grade		

Student Grading Sheet for RIC Leader

STUDENT: _____ **CLASS DATE:** _____

EVALUATOR: _____ **CASE STUDY #:** _____

PERFORMANCE STANDARD: Command and control techniques must be demonstrated by the student. Skills given a "Y" as the grade must be performed according to the information presented during the class.
GRADE: "**P**" – Successfully met the performance standard. "**F**" – Did not meet the performance standard.

	RIC LEADER	Pass	Fail
1.	Received briefing from RIC Group Supervisor.		
2.	Confirmed fireground operations radio channel and RIC radio channel.		
3.	Confirmed location of fire and volume.		
4.	Confirmed expected fire extension.		
5.	Confirmed where fire companies are operating.		
6.	Confirmed how long the fire companies have been operating.		
7.	Determined what progress has been made.		
8.	Compiled RIC equipment cache.		
9.	Communicated with RIC Group Supervisor entry time, PAR, lowest air level.		
10.	Communicated CAN reports.		
11.	Monitored air usage and work time before egress.		
Evaluator's Comments:		Final Grade	

Student Grading Sheet for Division/Group Supervisor

STUDENT: _____ **CLASS DATE:** _____

EVALUATOR: _____ **CASE STUDY #:** _____

PERFORMANCE STANDARD: Command and control techniques must be demonstrated by the student. Skills given a "Y" as the grade must be performed according to the information presented during the class.
GRADE: "**P**" – Successfully met the performance standard. "**F**" – Did not meet the performance standard.

	DIVISION/GROUP SUPERVISOR	Pass	Fail
1.	Received assignment and companies assigned from IC.		
2.	Confirmed fireground operations radio channel and RIC radio channel.		
3.	Confirmed location of fire and volume.		
4.	Confirmed expected fire extension.		
5.	Confirmed where fire companies are operating.		
6.	Confirmed how long the fire companies have been operating.		
7.	Determined what progress has been made.		
8.	Communicated and supervised companies assigned to the division.		
9.	Monitored building and fire conditions.		
10.	Coordinated with ventilation group or division.		
Evaluator's Comments:	Final Grade		

Student Grading Sheet for Lost/Trapped Fire Fighter

STUDENT: _____ **CLASS DATE:** _____

EVALUATOR: _____ **CASE STUDY #:** _____

PERFORMANCE STANDARD: Command and control techniques must be demonstrated by the student. Skills given a "Y" as the grade must be performed according to the information presented during the class.
GRADE: "**P**" – Successfully met the performance standard. "**F**" – Did not meet the performance standard.

	LOST/TRAPPED FIRE FIGHTER	Pass	Fail
1.	Communicated an emergency traffic fire fighter emergency to Command.		
2.	Utilized radio emergency button (if equipped) to the Command Center or Dispatch.		
3.	Communicated a LUNAR report to the IC.		
4.	Prepared to communicate on any channel.		
5.	Activated PASS device between communications.		
6.	Continued to search for a way out.		
7.	Moved to safe refuge area when needed.		
8.	Took a resting position near wall, doorway, or hallway.		
9.	Controlled breathing (skip breath), stayed calm, conserved air, monitored air levels.		
10.	Pointed flashlight toward ceiling and used tools to indicate position.		
11.	Provided RIC Group Supervisor updated LUNAR reports when necessary.		
Evaluator's Comments:		Final Grade:	

Appendix D: Message Cards

Case Study #1: Wisconsin **Message #1**

Clock: 0:00 Trapped FF - [A451]

A451 FF#2 initiates emergency traffic. Two FFs from A451 are down in the basement and separated from one another.

Case Study #1: Wisconsin **Message #2**

Clock: 0:30 IC - [BC1]

Acknowledge emergency traffic. Initiate proper actions. Channel change. Assign E453 as RGS. Request second alarm.

Case Study #1: Wisconsin **Message #3**

Clock: 1:00 RGS - [E453]

Brief E453 Engineer to lead RIC with both E53 FFs plus two E455 FFs to RIC deployment.

Case Study #1: Wisconsin **Message #4**

Clock: 1:30 Trapped FF - [A451]

Moving toward window in the basement. Unknown location of second FF.

Case Study #1: Wisconsin **Message #5**

Clock: 2:00 RGS - [E453]

Request three additional companies assigned to RIC. Communicate with Trapped FF.

Case Study #1: Wisconsin **Message #6**

Clock: 2:30 IC - [BC1]

Acknowledge RIC request. L451 now assigned. Second alarm companies when they arrive on scene. Request a third alarm.

Case Study #1: Wisconsin **Message #7**

Clock: 3:00 Interior Division - [E455]

Advise heavy fire on basement C-side. Two 1¾" lines in place in basement. Initiating knock down. Need two more companies.

Case Study #1: Wisconsin **Message #8**

Clock: 3:30 RIC 1 - [E453]

Entering basement through stairs in garage. PAR 5.

Case Study #1: Wisconsin **Message #9**

Clock: 4:00 Interior Division - [E455]

Crews encountering heavy debris in the basement.

Case Study #1: Wisconsin **Message #10**

Clock: 4:30 Trapped FF - [A451]

Located basement window. Do not know which side of the building. Cannot find partner from A451 (FF#1).

Case Study #1: Wisconsin **Message #11**

Clock: 5:00 RGS

Copy traffic. Update IC. Send A451 to B-side of basement for 2nd access point.

Case Study #1: Wisconsin **Message #12**

Clock: 5:30 Interior Division - [E455]

Copy RIC Group Supervisor traffic. Sending crews to basement windows. Little progress on fire. Conditions worsening.

Case Study #1: Wisconsin **Message #13**

Clock: 6:00 RIC 1 - [E453]

Two knots in. Slow progress. ¾ air. PAR 5. Heavy debris. High heat. Conditions deteriorating.

Case Study #1: Wisconsin **Message #14**

Clock: 6:30 RGS - [E453]

Copy traffic. Advise IC.

Case Study #1: Wisconsin **Message #15**

Clock: 7:00 IC - [BC1]

Copy traffic. Advise E301 and 302 assigned to RIC.

Case Study #1: Wisconsin **Message #16**

Clock: 7:30 RIC 1 - [E453]

Located one trapped A451 FF trying to exit B-side basement window. Attempting extrication through window with outside crews. Request medics.

Case Study #1: Wisconsin **Message #17**

Clock: 8:00 RGS - [E453]

Copy traffic from RIC 1 - E453. Request update on second lost firefighter. Advise IC.

Case Study #1: Wisconsin **Message #18**

Clock: 8:30 RIC 1 - [E453]

No progress. Too much debris, heat, and smoke. Backing out. ½ tank air. PAR 5.

Case Study #1: Wisconsin **Message #19**

Clock: 9:00 Interior Division - [E455]

Backing out all crews at PAR. Advise transition to defensive operation.

Case Study #1: Wisconsin **Message #20**

Clock: 9:30 IC - [BC1]

Order evacuation. PAR on all companies.

Case Study #2: California **Message #1**

Clock: 0:00 Interior Division - [E34]

Advise IC conditions deteriorating on the inside. Order an evacuation of the structure.

Case Study #2: California **Message #2**

Clock: 0:30 IC - [BC13]

Acknowledge the evacuation order. Request PAR from Interior Division when all companies out.

Case Study #2: California **Message #3**

Clock: 1:00 Interior Division - [Capt E34]

Operating on A-side. All crews at PAR except E57 Captain missing.

Case Study #2: California **Message #4**

Clock: 1:30 [E57 Captain]

Issue emergency traffic. Give LUNAR. Believe he is near the rear of the building.

Case Study #2: California **Message #5**

Clock: 2:00 IC - [BC13]

Initiate Emergency Traffic actions. Assign E15 to RGS. Change radio channel.

Case Study #2: California **Message #6**

Clock: 2:30 RGS - [E15]

Acknowledge assignment. Request four additional units. Identify deployment location as C-side rollup door.

Case Study #2: California **Message #7**

Clock: 3:00 IC - [BC13]

Assign E33 crew, E34 crew, and Rescue 866 to RGS.

Case Study #2: California **Message #8**

Clock: 3:30 Interior Division - [Capt E34]

Advise IC. E66 and E46 operating large handlines at the C-side rollup door. RIC has good access from C-side.

Case Study #2: California **Message #9**

Clock: 4:00 [E57 Captain]

Advise RGS. ¼ air. Entangled in debris near C-side. Exact location unknown.

Case Study #2: California **Message #10**

Clock: 4:30 RGS - [E15]

Deploy E15 crew (PAR 4). E33 (PAR 4) crew on deck. Assign T66 to check secondary access for RIC companies. Request lighting at the rear of the building.

Case Study #2: California **Message #11**

Clock: 5:00 IC - [BC13]

Acknowledge lighting request. Make assignment.

Case Study #2: California **Message #12**

Clock: 5:30 RGS - [E15]

Make contact with E57 Captain. Provide update and direction.

Case Study #2: California Message #13

Clock: 6:00 Interior Division - [Capt E34]

Companies operating on C-side appear to be holding fire. Conditions inside improving.

Case Study #2: California Message #14

Clock: 6:30 RIC 1 - [E15]

Advise RGS. Two knots in. ¾ air. PAR 4. Heavy debris and smoke conditions. Slow progress.

Case Study #2: California Message #15

Clock: 7:00 IC - [BC13]

Request update from RGS. Assign ambulance crew to C-side for RGS. Consider additional alarm.

Case Study #2: California Message #16

Clock: 7:30 [E57 Captain]

Running out of air. PASS and flashlight on. Request crews to hurry.

Case Study #2: California Message #17

Clock: 8:00 RGS - [E15]

Acknowledge message from Captain 57. Provide necessary support.

Case Study #2: California Message #18

Clock: 8:30 RIC 1 - [E15]

Advise RGS. Three knots in. ½ air. PAR 4. Hear PASS device ahead.

Case Study #2: California Message #19

Clock: 9:00 RGS - [E15]

Launch next RIC Crew (E33). Advise RIC 1 that E15 to secure large area search rope and head back out.

Case Study #2: California Message #20

Clock: 9:30 RIC 2 - [E33]

Acknowledge RGS. Advise when on air.

Case Study #2: California Message #21

Clock: 10:00 RGS - [E15]

Assign next on deck RIC (E34) and (R866).

Case Study #2: California Message #22

Clock: 10:30 RIC Crew Captain - [T66]

Advise RGS no secondary access point for RIC.

Case Study #2: California Message #23

Clock: 11:00 RGS - [E15]

Acknowledge T66. Direct them to return to RIC deployment point on C-side.

Case Study #2: California Message #24

Clock: 11:30 RGS - [E15]

Attempt multiple contacts with Captain 57.

Case Study #2: California Message #25

Clock: 12:00 [E57 Captain]

No reply for remainder of the exercise.

Case Study #2: California Message #26

Clock: 12:30 Interior Division - [Capt E34]

Report fire still burning near A-side. Crews report hearing a PASS device inside but cannot locate source.

Case Study #2: California Message #27

Clock: 13:00 RIC 2 - [E33]

Two knots. ¾ air. PAR 4. Just passed E15 on the way out.

Case Study #2: California Message #28

Clock: 13:30 RGS - [E15]

Request IC provide two more crews for RIC and a rehab unit to the C-side.

Case Study #2: California Message #29

Clock: 14:00 IC

Acknowledge request. Update from RGS. Advise RGS getting E58, E47, and Rescue 34 for rehab.

Case Study #2: California Message #30

Clock: 14:30 RGS - [E15]

Acknowledge. Provide update on deployment status.

Case Study #2: California Message #31

Clock: 15:00 RIC 1 - [E15]

Out of the building. PAR 4. Need rehab.

Case Study #2: California Message #32

Clock: 15:30 RIC 2 - [E33]

Four knots. ¾ air. PAR 4. Found Captain E57. Stand by for PAC-CAN.

Case Study #2: California Message #33

Clock: 16:00 RGS - [E15]

Copy. Launching E34. Advise IC.

Case Study #2: California Message #34

Clock: 16:30 IC - [BC13]

Advise Interior Division.

Case Study #2: California Message #35

Clock: 17:00 Interior Division - [Capt E34]

Advise IC of interior conditions. No collapse hazard. Fire controlled in deployment area. Need three additional companies.

Case Study #2: California Message #36

Clock: 17:30 RIC 3 - [E34]

On air. PAR 4 with R866 crew. Entering building. Following search line to meet with RIC 2 - E66.

Case Study #2: California **Message #37**

Clock: 18:00 RGS - [E15]

Place E47 on deck for deployment.

Case Study #2: California **Message #38**

Clock: 18:30 RIC 2 - [E33]

Provide PAC-CAN for E57 Captain. Packaging in McGuire sled for removal. ½ air. PAR 4.

Case Study #2: California **Message #39**

Clock: 19:00 RGS - [E15]

Copy. Advise E33 that E34 has deployed to their location. Just entering building.

Case Study #2: California **Message #40**

Clock: 19:30 RIC 3 - [E34]

Three knots. ¾ air. PAR 4. Should contact E33 shortly.

Case Study #2: California **Message #41**

Clock: 20:00 RIC 3 - [E34]

With E33. Four knots. Just under ¾ air. PAR 4. Sending E66 out. Moving toward exit with E57 Captain. Launch next RIC.

Case Study #2: California **Message #42**

Clock: 21:00 RGS - [E15]

Acknowledge. Launch E47. Place another unit on deck for deployment.

Case Study #2: California **Message #43**

Clock: 21:30 RIC 4 - [E47]

Copy. On air. Entering the building. PAR 4.

Case Study #2: California **Message #44**

Clock: 22:00 RIC 2 - [E33]

Advise RGS. Two knots. Less than ½ air. Heading out. PAR 4. E34 has E57 Captain.

Case Study #2: California **Message #45**

Clock: 22:30 RIC 4 - [E47]

Two knots. Above ¾ air. PAR 4. Passed E33 on the way out.

Case Study #2: California **Message #46**

Clock: 23:00 RIC 4 - [E47]

Three knots. ½ air. PAR 4. Can hear E34.

Case Study #2: California **Message #47**

Clock: 23:30 RGS - [E15]

Copy traffic. Advise once you meet with E34, hand off E57 Captain. E34 to start out.

Case Study #2: California **Message #48**

Clock: 24:00 RIC 4 - [E47]

We are with E34. Assuming control of E57 Captain. Heading out behind E34. Two knots. ¾ air. PAR 4.

Case Study #2: California **Message #49**

Clock: 24:30 IC - [BC13]

Request update from RGS.

Case Study #2: California **Message #50**

Clock: 25:00 RGS - [E15]

Provide IC update.

Case Study #2: California **Message #51**

Clock: 25:30 RIC 3 - [E34]

We have exited the building. PAR 4. Awaiting E47.

Case Study #2: California **Message #52**

Clock: 26:00 RGS - [E15]

Advise medic unit and ambulance crew to move toward exit point to receive down officer.

Case Study #2: California **Message #53**

Clock: 26:30 RIC 4 - [E47]

Exited building with Captain 57. Our crew is PAR 4. Turning patient care over to medic crew.

Case Study #2: California **Message #54**

Clock: 27:00 RGS - [E15]

Advise IC. Initiate PAR on all crews assigned to RGS.

Case Study #2: California **Message #55**

Clock: 27:30 IC - [BC13]

Initiate post recovery protocols.

Case Study #4: Virginia **Message #1**

Clock: 0:00 Trapped FF - [T12]

Call for Emergency Traffic. Provide LUNAR report. 2nd floor. D-side. T12 FF Jones. Attempting egress. Cannot find windows. Burning. Need help.

Case Study #4: Virginia **Message #2**

Clock: 0:30 IC - [BC1]

Acknowledge Emergency Traffic. Take necessary actions.

Case Study #4: Virginia **Message #3**

Clock: 1:00 IC - [BC1]

Assign Rescue 10 Captain as RIC Group Supervisor. Initiate appropriate radio channel change. Turn over lost FF to RGS.

Case Study #4: Virginia **Message #4**

Clock: 1:30 RGS - [R10]

Brief Rescue 10 Engineer to lead RIC 1 deployment.

Case Study #4: Virginia **Message #5**

Clock: 2:00 RGS - [R10]

Request 2 additional companies.

Case Study #4: Virginia **Message #6**

Clock: 2:30 Interior Division - [E12]

Request additional resources to Division 1. Heavy fire.

Case Study #4: Virginia **Message #7**

Clock: 3:00 IC - [BC1]

Request 2nd alarm. Advise RGS E2 and A10 are assigned to RIC Group Supervisor.

Case Study #4: Virginia **Message #8**

Clock: 3:30 RGS - [R10]

Acknowledge IC traffic. Brief E2 and A10 crews.

Case Study #4: Virginia **Message #9**

Clock: 4:00 RIC 1

Laddering D-side to second floor. Request fire attack support.

Case Study #4: Virginia **Message #10**

Clock: 4:30 Trapped FF - [T12]

Burning. Getting hard to breathe. Air at ½ tank. Need help right now.

Case Study #4: Virginia **Message #11**

Clock: 5:00 RGS

Acknowledge traffic. Calm FF. Confirm survival techniques are being used.

Case Study #4: Virginia **Message #12**

Clock: 5:30 RIC 1

Two RIC members inside D-side initiating search. High heat conditions.

Case Study #4: Virginia **Message #13**

Clock: 6:00 Interior Division - [E12]

Fire intensifying. Poor progress. High heat. Poor visibility.

Case Study #4: Virginia **Message #14**

Clock: 6:30 RGS - [R10]

Acknowledge RIC 1 traffic. Update on Interior Division traffic.

Case Study #4: Virginia **Message #15**

Clock: 7:00 Trapped FF - [T12]

Request help. Radio clarity poor.

Case Study #4: Virginia **Message #16**

Clock: 7:30 RIC 1

High heat. 1,300° on TIC. Unable to advance with suppression support. Ceiling coming in. We are backing out.

Case Study #4: Virginia **Message #17**

Clock: 8:00 RGS - [R10]

Copy RIC Leader backing out. Advise IC.

Case Study #4: Virginia **Message #18**

Clock: 8:30 RGS - [R10]

Attempt contact with down FF. No response.

Case Study #4: Virginia **Message #19**

Clock: 9:00 RIC 1

Both RIC members out at PAR of 4.

Case Study #4: Virginia **Message #20**

Clock: 9:30 RGS - [R10]

Make appropriate acknowledgements and advisements.

Case Study #4: Virginia **Message #21**

Clock: 10:00 Interior Division - [E12]

Unable to contain fire. Evacuating all companies from the building.

Case Study #4: Virginia **Message #22**

Clock: 10:30 IC - [BC1]

Make appropriate acknowledgements and advisements. Conduct PAR.

Case Study #5: Maryland **Message #1**

Clock: 0:00 Trapped FF - [E41]

Emergency Traffic. Three FFs trapped. Give LUNAR report.

Case Study #5: Maryland **Message #2**

Clock: 0:30 IC - [BC1]

Acknowledge Emergency Traffic. Initiate necessary actions.

Case Study #5: Maryland **Message #3**

Clock: 1:00 IC - [BC1]

Assign E53 Captain to RGS. Request additional alarm.

Case Study #5: Maryland **Message #4**

Clock: 1:30 RGS - [E53]

Brief E50 crew for RIC operations. Request three additional companies for RIC.

Case Study #5: Maryland **Message #5**

Clock: 2:00 Interior Division - [E41]

E41 Captain assumes Interior Division. Attempting secondary access to structure.

Case Study #5: Maryland **Message #6**

Clock: 2:30 Trapped FF - [E41]

Still trapped inside front door along with S11 FF. Unable to make contact with E41 FF Smith.

Case Study #5: Maryland **Message #7**

Clock: 3:00 IC - [BC1]

Advise RIC Group Supervisor getting E44, E53, and T45.

Case Study #5: Maryland **Message #8**

Clock: 3:30 RIC 1 - [E50]

Located 2 missing FFs inside the front door. E41 and S11. Provide PAC-CAN. Working to get them out. One member of E41 still missing. Will need relief company for search and rescue.

Case Study #5: Maryland **Message #9**

Clock: 4:00 RGS - [E53]

Copy. Update. Make proper advisements and requests.

Case Study #5: Maryland **Message #10**

Clock: 4:30 IC - [BC1]

Copy. Update. Request report on conditions from Interior Division.

Case Study #5: Maryland **Message #11**

Clock: 5:00 Interior Division - [E41]

Fire being contained to second floor. High heat conditions. Poor visibility. Need ventilation.

Case Study #5: Maryland **Message #12**

Clock: 5:30 RIC 1 - [E50]

Advise RIC Group Supervisor E41 and S11 FFs out of the building. PAR on company.

Case Study #5: Maryland **Message #13**

Clock: 6:00 RGS - [E53]

Advise IC of situation status. Launch E53 for E41 missing FF. Request Medics.

Case Study #5: Maryland **Message #14**

Clock: 7:00 Interior Division - [E41]

Visible fire knocked down. Checking attic. Need two additional engine companies to relieve interior crews.

Case Study #5: Maryland **Message #15**

Clock: 7:30 RIC 2 - [E53]

First floor. Two knots in moving toward C-side. ¾ air. PAR. Hear PASS alarm.

Case Study #5: Maryland **Message #16**

Clock: 8:00 RGS - [E53]

Copy E53. E44 on deck ready to assist.

Case Study #5: Maryland **Message #17**

Clock: 8:30 RIC 2 - [E53]

PAC-CAN. Found E41 FF Smith. Unconscious. Out of air. Providing air and packaging. Have high heat with zero visibility. Three knots in. Launch next crew to assist with extrication. Were PAR.

Case Study #5: Maryland **Message #18**

Clock: 9:00 RGS - [E53]

Acknowledge. Launch E44. Consider another on deck company. Update IC.

Case Study #5: Maryland **Message #19**

Clock: 10:00 RIC 2 - [E53]

FF Smith packaged. On the way out to A-side. ½ bottle. PAR 4.

Case Study #5: Maryland **Message #20**

Clock: 10:30 RIC 3 - [E44]

Met with E53 just past two knots. Both crews at PAR and on the way out.

Case Study #5: Maryland **Message #21**

Clock: 11:00 RGS - [E53]

Copy traffic. Medic 30 on standby.

Case Study #5: Maryland **Message #22**

Clock: 11:30 RIC 3 - [E44]

E44 and E53 out of the building at PAR with E41 FF Smith.

Case Study #5: Maryland **Message #23**

Clock: 12:00 RGS - [E53]

Advise IC.

Case Study #6: Pennsylvania Message #1

Clock: 0:00 IC - [BC1]

Civilian advises IC of a collapse in the front of the garage. Two fire fighters may be trapped.

Case Study #6: Pennsylvania Message #2

Clock: 0:30 IC - [BC1]

Make proper announcement. Two fire fighters possibly trapped in Division A.

Case Study #6: Pennsylvania Message #3

Clock: 1:00 Trapped FF - [E8 ENG]

Advise IC that you and your fellow fire fighter are trapped by debris. Other firefighter is not responding. Provide LUNAR report.

Case Study #6: Pennsylvania Message #4

Clock: 1:30 IC - [BC1]

Assign Ladder 4 to RGS and Engine 9 to Exposure Group. Initiate PAR of resources on scene. Reassign tactical channel.

Case Study #6: Pennsylvania Message #5

Clock: 2:00 RGS - [L4]

Acknowledge RIC assignment. Request Engine 8 LUNAR. Initiate a rescue with Ladder 4 Engineer as RIC. Provide PAR. Request additional truck company.

Case Study #6: Pennsylvania Message #6

Clock: 2:30 Exposure Group - [E9]

Advise IC of heavy fire conditions in the C/D Division. Provide PAR. Request additional engine company to support operation.

Case Study #6: Pennsylvania Message #7

Clock: 3:00 IC - [BC1]

Consider requesting additional resources, you only have two resources not assigned.

Case Study #6: Pennsylvania Message #8

Clock: 3:30 IC - [BC1]

Advise RGS of additional resources assigned to RIC – T2.

Case Study #6: Pennsylvania Message #9

Clock: 4:00 RGS - [L4]

Acknowledge additional resources. Receive update from RIC.

Case Study #6: PennsylvaniaMessage #10

Clock: 4:30 RIC – [L4 CREW]

Provide RGS with CAN report. In process of removing engineer from debris. Fire fighter still trapped. Request additional personnel.

Case Study #6: PennsylvaniaMessage #11

Clock: 5:00 RGS - [L4]

T2 assigned to RIC, use as necessary. Request additional resources.

Case Study #6: PennsylvaniaMessage #12

Clock: 5:30 IC - [BC1]

Assign resources if available.

Case Study #6: PennsylvaniaMessage #13

Clock: 6:00 Exposure Group - [E9]

Getting knock down on fire. Could still use additional engine.

Case Study #6: PennsylvaniaMessage #14

Clock: 6:30 IC - [BC1]

Assign resources if available.

Case Study #6: PennsylvaniaMessage #15

Clock: 7:00 RIC – [L4 CREW]

Gained access to Engine 8 fire fighter. He is not breathing. Extended extrication due to debris. Request air bags and ambulance on standby.

Case Study #6: PennsylvaniaMessage #16

Clock: 7:30 RGS - [L4]

Advise IC of request for air bags and ambulance.

Case Study #6: PennsylvaniaMessage #17

Clock: 8:00 IC - [BC1]

Acknowledge RGS request. Make appropriate request.

Case Study #6: PennsylvaniaMessage #18

Clock: 8:30 RIC – [L4 CREW]

Trapped fire fighter extricated. He is not breathing. Coordinate appropriate resources.

Case Study #6: PennsylvaniaMessage #19

Clock: 9:00 RGS - [L4]

Make appropriate acknowledgements and advisements.

Case Study #6: PennsylvaniaMessage #20

Clock: 9:30 IC - [BC1]

Make appropriate acknowledgements and advisements. Conduct PAR.

Appendix E: RIC Tactical Worksheets

- ❒ IC/OPERATIONS SECTION CHIEF
- ❒ RIC GROUP SUPERVISOR
- ❒ CRITICAL FIREGROUND FACTORS
- ❒ RIC GROUP SUPERVISOR AIR MANAGEMENT

- Keep the worksheets in good condition to use for future classes.
- Make a copy for each student.

INCIDENT CLOCK

☐ 10 MINUTES	☐ 20 MINUTES	☐ 30 MINUTES	☐ 40 MINUTES
☐ 50 MINUTES	☐ 60 MINUTES	☐ 70 MINUTES	☐ 80 MINUTES
☐ 90 MINUTES	☐ 100 MINUTES	☐ 110 MINUTES	☐ 120 MINUTES

IC/OPERATIONS SECTION CHIEF
RIC Worksheet

RIC/INITIAL TAC CHANNEL _____ **STANDBY TAC CHANNEL** _____ **COMMAND CHANNEL** _____

PREDEPLOYMENT

- ❑ Start 10-minute clock with dispatch/IDT if not already running.
- ❑ Assign RIC Company.
- ❑ Assign RIC Group Supervisor.
- ❑ Assign Safety Officer.
- ❑ Ensure Breathing Support on scene.
- ❑ Confirm additional TAC channel.
- ❑ When RIC established, Out Team transitions to accountability only.

DEPLOYMENT

- ❑ Request Emergency Traffic/Stop unnecessary radio traffic.
- ❑ Identify Emergency Traffic initiator (name, company, problem, and location).
- ❑ Instruct personnel to stay calm, activate PASS, and take measures to increase survivability.
- ❑ Deploy available resources (Out Team, RIC, companies in immediate area).
- ❑ RIC to TAC channel of downed fire fighter.
- ❑ Assign fireground operations to assigned standby TAC channel.
- ❑ Request additional alarm(s).
- ❑ Assign additional companies to RIC Group per needs.
- ❑ Obtain PAR on all crews.
- ❑ Establish Medical Group. Activate transport and consider MCI activation.
- ❑ Evaluate current mode of operation (offensive/defensive, etc.); change if needed.
- ❑ Expand command organization appropriately (if needed).
- ❑ Determine technical rescue requirements.
- ❑ Assess structural stability continuously.
- ❑ Reinforce fire-fighting positions. Consider large handlines (2½″).
- ❑ Establish/Expand Rehab Group.
- ❑ Ventilate and maintain tenability.

POST DEPLOYMENT

- ❑ Notify Host agency Fire Chief of RIC Deployment.
- ❑ Develop Relief schedule for all affected crews.
- ❑ Establish Welfare Officer.
  - FD representative to each hospital.
  - FD representative to members home.
  - Consider transportation for families.
- ❑ Assign Chief Officer to develop CISD resources.
- ❑ Secure and bag rescued members PPE (including SCBA, etc).
- ❑ Request fire investigators.
- ❑ Notify Department Chaplin (if appropriate).
- ❑ Continue structural evaluation.
- ❑ Establish/Ensure PIO Assignment.

INCIDENT CLOCK

☐ 10 MINUTES	☐ 20 MINUTES	☐ 30 MINUTES	☐ 40 MINUTES
☐ 50 MINUTES	☐ 60 MINUTES	☐ 70 MINUTES	☐ 80 MINUTES
☐ 90 MINUTES	☐ 100 MINUTES	☐ 110 MINUTES	☐ 120 MINUTES

RIC GROUP SUPERVISOR
RIC Worksheet

RIC/INITIAL TAC CHANNEL _____ **STANDBY TAC CHANNEL** _____ **COMMAND CHANNEL** _____

PREDEPLOYMENT

- ❑ Assemble crew(s) and brief on incident details.
- ❑ Stage RIC tools and equipment on tarp. Additional tools and equipment as deemed necessary based on the incident.
- ❑ Notify IC (CAN report) that RIC Group "Ready."
- ❑ Prepare Air Management Worksheet.
- ❑ Recon the incident scene (apparatus placement, points of entry, alternate doors and windows).
- ❑ Consider multiple staging/deployment points for large buildings.
- ❑ Provide additional means of egress for roof operations or companies operating above the ground floor.
- ❑ Remove security bars/devices.
- ❑ Coordinate the opening of doors and windows.
- ❑ Confirm status of utilities.
- ❑ Request additional personnel if needed.
- ❑ Consider critical fireground factors (risk analysis/see back of form).

DEPLOYMENT

- ❑ Start air management of RICs.
- ❑ Consider air management of victim (elapsed time).
- ❑ Consider the point of entry for crew/member in trouble.
- ❑ Consider the last known location of crew/member in trouble.
- ❑ Establish additional RICs for relay rescue.
- ❑ Consider additional suppression support for RIC deployment.
- ❑ Monitor air supply.
- ❑ Consider fire fighter fatigue.
- ❑ Consider alternative exit points.
- ❑ Provide timely reports (CAN) and PARs to direct supervisor or Incident Commander.
- ❑ Communicate the rescue plan.
- ❑ Communicate the search plan.

CRITICAL FIREGROUND FACTORS
RISK MANAGEMENT PHILOSOPHY

We will initiate every response under the assumption there are lives and property to save.
We will risk our lives a lot, in a calculated manner, to save savable lives.
We will risk our lives a little, in a calculated manner, to save property.
We will not risk our lives at all, for what is already lost.

Early recognition of these factors will help reduce the possibility of a fire fighter Injury or entrapment on the fireground.

- ❑ Active working fire and entry time will be delayed, or there is a loss of "time recognition" by crews or the IC.
- ❑ Multiple companies have been assigned to enter through one entry point.
- ❑ Roof Division companies are being driven off the roof as crews are preparing to go inside.
- ❑ Air is being drawn in rapidly in zero visibility and heat is banking down.
- ❑ Interior crews can hear the fire burning above them, but they can't see it.
- ❑ Interior crews are working underneath a mezzanine.
- ❑ Crews feel "uncomfortable" with the situation they are in.
- ❑ A crewmember's SCBA low air alarm activates, and he or she is still searching for the seat of the fire.
- ❑ Interior crews flow water for several minutes and make no progress on the fire.
- ❑ Interior crews hear the sound of roof ventilation operations being conducted behind them.
- ❑ Crews are unable to communicate with the Incident Commander or Division/Group Supervisor.
- ❑ A crew or crewmember is in trouble and fails to recognize it.
  - A call for Emergency Traffic is delayed or not initiated.
- ❑ Crews are deep inside a commercial building with 1¾" hoselines rather than 2½" hoselines.
- ❑ Prior to building entry, fireground companies and the IC fail to recognize basic construction features that should influence decision making and actions.
- ❑ Crews and Commanders are not following the "order model" for communications or are using terms that are unclear and send mixed messages.
- ❑ Company Officers are not monitoring the air supply status of their crews and are not practicing proper air management techniques.
- ❑ All members operating on the fireground fail to evaluate and apply the "Risk Management Philosophy" to their assignment.

RIC GROUP SUPERVISOR
Air Management

This form is intended for use on one missing or trapped fire fighter: _____ _____

Assigned Fire Fighter **Reported Location**

RIC COMPANY		TIMES	TIMES	PAR REQUESTS/UPDATES PAR – KNOTS – AIR	PAC-CAN* *(Fire Fighter Found)* Knots/Location
	IN				
	TURNAROUND				
	OUT				
	IN				
	TURNAROUND				
	OUT				
	IN				
	TURNAROUND				
	OUT				
	IN				
	TURNAROUND				
	OUT				

* Pass-device Assessment Communication/Conditions Actions Needs