



International  
Association  
of Fire Chiefs



National  
Fire Protection  
Association

# Fire Officer

Principles and Practice  
THIRD EDITION



## Chapter 16 Rules of Engagement (Fire Officer I)

# Fire Officer I Objectives

- Discuss the origins of the Rules of Engagement (ROE).
- Describe the scope of the line-of-duty death problem.
- Describe the elements of size-up.
- Discuss occupant survivability in terms of fire behavior and fire fighter safety.

# Fire Officer I Objectives

- Discuss the concept that lives should not be risked for lives or property that cannot be saved.
- Discuss the level of risk extended to protect savable property.
- Discuss the level of risk extended to protect savable lives.

# Fire Officer I Objectives

- Discuss the importance of fire fighters staying together.
- Discuss the importance of maintaining situational awareness.
- Discuss the importance of fire-ground communications.

# Fire Officer I Objectives

- Discuss the importance of reporting unsafe practices or conditions.
- Discuss the value of retreat in unsafe conditions.
- Describe when a mayday should be declared.

# Introduction

**Table 16-1** Rules of Engagement for Structural Firefighting

1. Size up your tactical area of operation.
2. Determine the occupant survival profile.
3. <i>Do not</i> risk your life for lives or property that cannot be saved.
4. Extend <i>limited</i> risk to protect savable property.
5. Extend <i>vigilant</i> and <i>measured</i> risk to protect and rescue <i>savable</i> lives.
6. Go in together, stay together, come out together.
7. Maintain continuous awareness of your air supply, situation, location, and fire conditions.
8. Constantly monitor fire-ground communications for critical radio reports.
9. You are required to report unsafe practices or conditions that can harm you. Stop, evaluate, and decide.
10. You are required to abandon your position and retreat before deteriorating conditions can harm you.
11. Declare a mayday as soon as you THINK you are in danger.

Reproduced from: IAFC Safety, Health, and Survival Section. (n.d.) "Rules of Engagement for Firefighter Survival." Rules you can LIVE By. [http://www.iafcsafety.org/downloads/ROE\\_Poster\\_FINAL.pdf](http://www.iafcsafety.org/downloads/ROE_Poster_FINAL.pdf)

# How the Rules Came to Be

- The Rules of Engagement (ROE) evolved from “Rules” developed by the Seattle IAFC Safety Committee.
  - Focus on the fire fighter and fire officer working at the task level of fire suppression operations

# How the Rules Came to Be

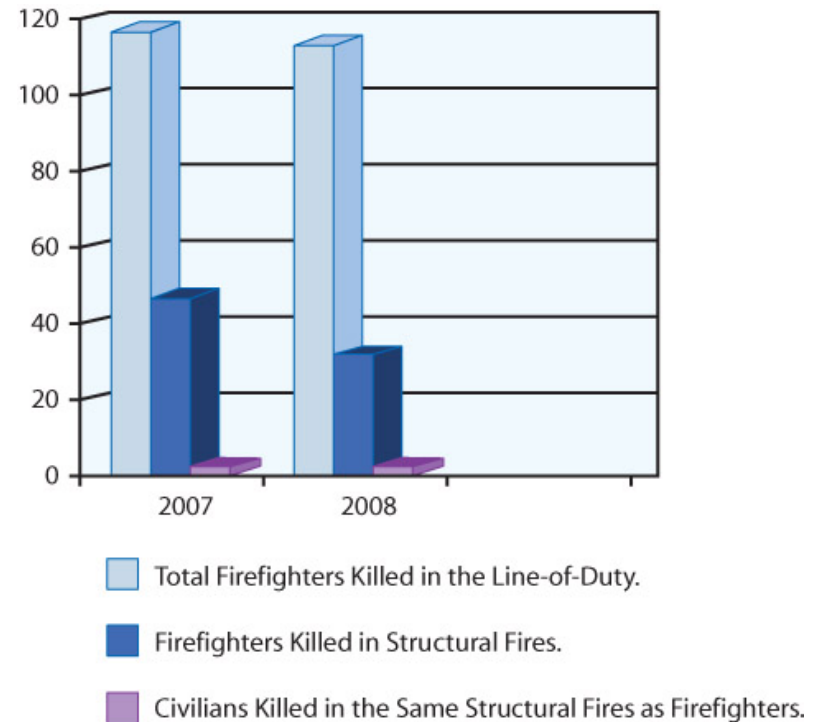
- Rules of Engagement criteria:
  - Be a short, specific set of bullet points
  - Be easily taught and remembered
  - Define critical risk issues
  - Define “go” and “no go” situations

# Understanding the Scope of the Problem

- Open versus enclosed structures
  - More than three-fourths of fire fighter deaths occur in enclosed structures.

# Survivability Profiling

- Captain Stephen Marsar explored the concept of survivability profiling.



Reproduced from Marsar, S. (2011, November) "Survivability Profiling Takes Size-Up to a New Level: Firefighters must consider not just whether victims might be inside, but whether they can still be alive." *Fire Rescue Magazine*.

# Fire Fighter Survivability Inside Structure Fires

- Trend: increases number of traumatic injuries while operating inside structures
  - The fire department and the company officer must minimize exposure to unsafe conditions.
  - The ROE integrate the fire fighter into the risk assessment decision-making process.

# Rule 1. Size up Your Tactical Area of Operation

- **Objective:** To cause the company officer and fire fighters to look over their area of operation, evaluate their risk exposure, and determine a safe approach to complete objectives.

# Rule 1. Size up Your Tactical Area of Operation

- Lack of a complete size-up is often a contributing factor in fire fighter deaths.
  - The fire attack crew should size up the total situation within their line of sight.
  - The first-arriving company officer or team leader must cover each side of the fire ground.

## Rule 2. Determine the Occupant Survival Profile

- **Objective:** To cause the company officer and fire fighter to consider five conditions in relation to possible occupant survival of a rescue event.

## Rule 2. Determine the Occupant Survival Profile

- The essential component in size-up is to determine whether any occupants are trapped and whether they can survive.
  - If survival is not possible, a more cautious approach to fire operations must be taken.

# Today's Smoke Is More Toxic

- When making the decision to conduct search and rescue operations, factor in:
  - Growing fire conditions
  - Resources on scene
  - Time needed to complete a rescue



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## Rule 3. Don't Risk Your Life for Lives or Property That Can't Be Saved

- **Objective:** To prevent fire fighters from engaging in high-risk operations when fire conditions prevent occupant survival and significant or total destruction of the building is inevitable.

## **Rule 3. Don't Risk Your Life for Lives or Property That Can't Be Saved**

- If conditions indicate no occupant can survive the fire conditions, operations should be suspended until the fire has been controlled.

# Lives That Could Not Be Saved

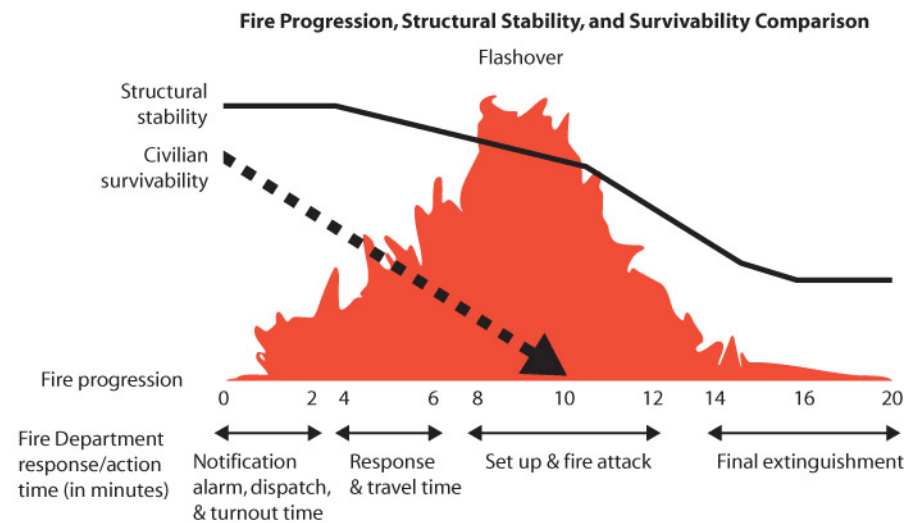
- A quint and an engine responded to a structure fire with children trapped.
  - The search team brought out two of the trapped children in cardiac arrest.
    - Should have been indication that it was unlikely any additional occupants could survive

## Rule 4. Extend Limited Risk to Protect Savable Property

- **Objective:** To cause fire fighters to limit their risk exposure to a reasonable, cautious, and conservative level when trying to save a building.

# Rule 4. Extend Limited Risk to Protect Savable Property

- No building is worth the life of a fire fighter.
- Interior operations must be fully supported with adequate resources.



Reproduced from: Figure 1 from: Safety, Health, and Survival Section. (2012). Rules of Engagement for Structural Firefighting.

# Rule 5. Extend Vigilance to Protect and Rescue Savable Lives

- **Objective:** To cause fire fighters to manage operations in a calculated, controlled, and safe manner, while remaining alert to changing conditions.

# Rule 5. Extend Vigilance to Protect and Rescue Savable Lives

- During search and rescue operations, crews must remain vigilant and measured.
- Members should continually assess fire conditions.



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# Deteriorating Conditions

- The situation can deteriorate rapidly.
- Fire fighters must remain aware of changing conditions.

# Rule 6. Go in Together, Stay Together, Come out Together

- **Objective:** To ensure that fire fighters always enter a burning building as a team of two or more members and that no fire fighter is allowed to be alone at any time while entering, operating in, or exiting a building.

# Rule 6. Go in Together, Stay Together, Come out Together

- Situations when a fire fighter is alone in a burning structure:
  - Fire fighter becomes separated from crew
  - Single fire fighter freelancing
  - Fire fighter entering a structure alone
  - Fire fighter leaving when low on SCBA air

# Rule 6. Go in Together, Stay Together, Come out Together

- Crew integrity is critical for survival.
  - Stay together in teams of two or more.
  - Freelancing is strictly prohibited.
- If a fire fighter becomes separated, he or she must immediately communicate with the company officer or the fire fighter's partner.

# Rule 7. Maintain Continuous Awareness

- **Objective:** To cause all fire fighters and company officers to maintain constant situational awareness of their SCBA air supply and where they are in the building, as well as all that is happening that may affect their risk and safety.

# Rule 7. Maintain Continuous Awareness

- Major factors in fire fighter deaths:
  - Running out of air
  - Getting caught in rapidly deteriorating conditions
  - Becoming disoriented and lost



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# Rule 7. Maintain Continuous Awareness

- NFPA 1404 requires an air management program.
- NFPA 1500 requires standardized IDLH exiting to be practiced.
- NFPA 1852 requires fire fighters to confirm the SCBA is fully functional.

# Rule 7. Maintain Continuous Awareness

- Benchmarks for checking air supply:
  - Before entry
  - After going up or down stairs
  - Before entering and searching a room
  - After exiting a room
  - After going down a hallway or aisle
  - Before and after doing a demanding task

# Air Management as a Situational Awareness Tool

- Situational awareness: level of understanding one has regarding the reality of a set of conditions
  - Most commonly reported cause of a life-threatening near-miss event
- Observe surroundings, landmarks, windows, exits, and route.

# Rule 8. Constantly Monitor for Critical Radio Reports

- **Objective:** To cause all fire fighters and company officers to maintain constant awareness of all fire-ground radio communications on their assigned channel.

# Rule 8. Constantly Monitor for Critical Radio Reports

- Every fire fighter in the hazard zone should have a portable radio.
- The company officer should provide supervisors with progress reports.



Courtesy of Mike Legeros.

# Rule 9. You Are Required to Report Unsafe Practices or Conditions

- **Objective:** To prevent company officers and fire fighters from engaging in unsafe practices or exposure to unsafe conditions and to allow any member to raise an alert about a safety concern without penalty.

# Rule 9. You Are Required to Report Unsafe Practices or Conditions

- The company officer must minimize fire fighters' exposure to unsafe conditions and stop unsafe practices.
  - A high percentage of errors on the fire ground happen when individuals fail to intervene in unsafe situations.

# Learning from the Aviation Industry

- In the late 1970s, the aviation industry had a similar problem of one-way decision making and communication.
  - Crew resource management (CRM) established two-way communications among all members of the flight crew.

# Raising the Red Flag

- When a “red flag” is raised, the supervisor is mandated to:
  - Accept the validity of the concern
  - Take a few seconds to assess it
  - Talk with others
  - Make a safe decision

# Rule 10. Retreat Before Deteriorating Conditions Can Harm You

- **Objective:** To cause fire fighters and company officers to be aware of fire conditions and cause an early exit to a safe area when they are exposed to deteriorating conditions, unacceptable risk, or a life-threatening situation.

# Rule 10. Retreat Before Deteriorating Conditions Can Harm You

- Withdrawal must occur early enough to allow a safe exit from the building or to relocate.
- No fire fighter needs a supervisor's approval to withdraw.

# Melted Helmets and Heat-Crazed Face Pieces

- The culture of fire fighters “standing their ground” cannot be accepted.
- The fire department management team must intervene and eliminate this unsafe behavior.

# Rule 11. Declare a Mayday as Soon as You Think You Are in Danger

- **Objective:** To ensure a mayday is declared as soon as a fire fighter thinks he or she is in trouble.

# Rule 11. Declare a Mayday as Soon as You Think You Are in Danger

- Fire fighters should provide the incident commander with:
  - Name
  - Company
  - Location
  - Air supply
  - Situation
  - Any other critical information

# Mayday Versus Emergency Traffic

- Mayday: fire fighter is experiencing a life-threatening emergency
- Emergency traffic: other emergencies on the fire ground

# Mayday Versus Emergency Traffic

- Reasons for delay in declaring a mayday:
  - Temporal distortion
  - Reluctance to relinquish control
  - Channeled attention
  - Loss of situational awareness
  - Fear of the unknown or of retribution

# Mayday Versus Emergency Traffic

- Reasons for delay in declaring a mayday (cont'd):
  - Lack of procedural knowledge
  - Attempting to fix the problem
  - Pride
  - Denial

# Summary

- The Rules of Engagement were developed by the IAFC.
- More than three-fourths of disoriented deaths occurred in enclosed structures.
- Fire fighters are much more likely to die in fires than civilians are.

# Summary

- The fire department should minimize fire fighter exposure to unsafe conditions.
- An essential component in the size-up is to determine whether any occupants are trapped and can survive.
- Many factors must be considered when deciding to conduct search and rescue.

# Summary

- During search and rescue, crews must remain alert to changing conditions.
- Crew integrity is critical to survival.
- The SCBA air supply and portable radio are the fire fighter's life support system.
- The nature of firefighting nearly always places the crew in the area of risk.

# Summary

- When a red flag is raised, the supervisor must accept that concern.
- The culture of fire fighters “standing their ground” cannot be accepted.
- Training must emphasize the immediate declaration of a mayday when facing a life-threatening situation.