



# TACTICAL CONSIDERATIONS FOR SPECIFIC OCCUPANCY STRUCTURES

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There are a vast range of buildings that present a higher level of danger to firefighters than a single family dwelling. Most basic fire school curriculums do not have the time frame to discuss the specifics of fighting fires in target and high-hazard structures. This course is broken down into two sections, each lasting 12 hours in length. The first four lectures deal with bread and butter operations – firefighting strategy, scene size-up and tactical assignments for engine and ladder companies. The next four lectures deal with the strategic and tactical challenges faced by firefighters when dealing with a specific type of structure. Topics include churches, windowless buildings, strip shopping malls, high rise buildings and lumberyards. All firefighters will receive a certificate for 24 hours upon completing the entire first 12 hour module and an additional 12 hours in the second module. Training officers have their choice in determining which topics they feel are necessary for their particular operation. All classes are presented in traditional classroom format with open discussion and the use of video to reinforce the learning process. Select topics are also available to be presented in 3 hour “stand alone” segments for firefighters who do not wish to complete the entire 24-hour program

## **TOPIC: Safety and Rules of Firefighting Strategy**

**LENGTH:** 3 hours

### **LEARNING OBJECTIVES**

- Understand Incident Priorities
- Understand the components of the IMS
- Successfully and correctly use the definitions of the IMS
- Identify the roles of the personnel involved in the IMS

### **COURSE DESCRIPTION**

Safety is the number one priority on any fireground. Safety cannot be maintained without an effective fireground command system. This course will teach the fundamentals of an incident management system and the personnel that must be employed to effectively supervise an emergency scene. The basis for establishing and maintaining command will also be discussed.

## **TOPIC: Scene Size-up**

**LENGTH:** 3 hours

### **LEARNING OBJECTIVES**

- Correctly define “Size-up”
- Describe the fireground factors that affect a true size-up
- Identify size-up factors that firefighters must recognize before the emergency
- Describe the difference among size-up, strategy and tactics

### **COURSE DESCRIPTION**

Upon arrival at the scene of an emergency, firefighters have a limited opportunity to interpret the situation and “take it all in.” Size-up is a crucial first step in developing an incident action plan to bring the situation under control. Size-up occurs before, during and even after the emergency itself has taken place.

## **TOPIC: Principles of Engine Company Operations**

**LENGTH:** 3 hours

### **LEARNING OBJECTIVES**

- Define the job functions of an engine company
- Describe in detail the pros and cons of various nozzle types
- Recognize the factors that influence hoseline selection
- Recognize the need for a leader line
- Describe the purposes of master streams
- Calculate fire flows using industry standards

### **COURSE DESCRIPTION**

Engine companies are the suppressors of the fire scene. Competent engine company operations involve more than just “putting the wet stuff on the red stuff.” Personnel operating as part of a single or twin engine company need to understand water supply, hoseline capabilities and hydraulics to operate safely and efficiently.

## **TOPIC: Principles of Truck Company Operations**

**LENGTH:** 3 hours

### **LEARNING OBJECTIVES**

- Describe the job functions of a truck company
- Understand the difference in the tactics of Interior vs Exterior teams
- Recognize the pros and cons of different types of roof construction
- Understand the need for a primary search
- Correctly recognize the need for safe fireground overhaul

### **COURSE DESCRIPTION**

Truck companies are the vital support team of the fireground. Although the members are not as actively involved in suppressing the fire as an engine company, the jobs they perform are invaluable to ensuring that all tactical priorities are covered. Whether these tasks are completed with an engine or rescue/squad Company or a fully-equipped ladder apparatus, *they must be completed at some time throughout the course of the incident.*

## **TOPIC: The FRAT Squad-Firefighter Rapid Assistance Team**

**LENGTH:** 3 hours

### **LEARNING OBJECTIVES**

- Understand the language of the various NFPA and OSHA documents that apply to RIT
- Review the common factors that have contributed to past firefighter deaths
- Implement various techniques that a RIT team can perform to assist fireground operations.
- Students will list the complement and use of various power and handtools that a RIT team will deploy at the scene of an incident

### **COURSE DESCRIPTION**

The implementation of a Rapid Intervention Team at any incident is the firefighter's insurance policy. Incident Commanders must be prepared to protect operating crews and initiate an effective firefighter rescue team upon the sounding of a MAYDAY. This course describes the rationale and basis for using and deploying a FRAT squad.

***NOTE: Depending on the curriculum chosen, students have the option to receive a PA State Fire Academy certificate for attending this class.***

## **TOPIC: Structural Collapse**

**LENGTH:** 3.5 hours

### **LEARNING OBJECTIVES**

- Conduct a community vulnerability assessment in regards to structural collapse
- Explain resource acquisition and utilization for structural collapse incidents
- Identify the four types of collapse
- Identify hazards associated with collapse and ways to deal with each
- Students will describe the factors that determine the size-up of a collapse incident

### **COURSE DESCRIPTION**

Firefighters and officers need to have a strong understanding of building construction and the effects that fire will have - eventually causing the structure to collapse. This course will address resource needs, structural components, collapse types and collapse indicators. All content presented is beneficial to any first responder who operates at structure fires.

***NOTE: Depending on the curriculum chosen, students have the option to receive a PA State Fire Academy certificate for attending this class.***

## **TOPIC: Residential Structure Fires**

**LENGTH:** 4 hours

### **LEARNING OBJECTIVES**

- Understand the influence firefighter staffing has on structure fires
- Describe the purposes and rationale for tactical apparatus assignments
- Identify the differences in strategy and tactics for residential occupancies

### **COURSE DESCRIPTION**

Firefighters can never forget the basics. This course will reinforce fire attacks in various types of residential structures including townhouses, garden apartments and

single family dwellings. Incident priorities, firefighter staffing and crew assignments will also be discussed.

## **TOPIC: High Rise Firefighting Awareness**

**LENGTH:** 4 hours

### **LEARNING OBJECTIVES**

- Students will understand the factors that make fighting fires in multi-story bldgs different from standard “bread and butter” structural firefighting
- List occupancy uses that multi-story buildings are built for as well as construction types.
- Understand the importance of an incident management system at a high rise fire.
- Understand the tactical assignments for engine and ladder companies.

### **COURSE DESCRIPTION**

A fire in a high-rise building can challenge even the most prepared and equipped fire department. Over the years, multiple firefighter fatalities in this type of structure have prompted changes in safety, equipment deployment and command structure to prevent future deaths. This introductory course in high-rise firefighting is meant to give students an awareness of the difficulty in fighting this type of fire.

## **TOPIC: Church Fires**

**LENGTH:** 3 hours

### **LEARNING OBJECTIVES**

- Students will understand the delicate nature and spiritual values inherent in fighting church fires
- Students will recognize the construction components that collapse under fire conditions
- Students will be able to understand risk versus gain in sizing up church fires

### **COURSE DESCRIPTION**

Church fires present unique challenges for responding fire departments. Their construction, lack of built-in fire protection and open occupancy can allow for rapid fire spread and often, the complete loss of the structure. With most fire departments having at least one type of “house of worship” in their local, this course will benefit all types of responders.

**TOPIC: Strip Shopping Malls**

**LENGTH:** 3 hours

**LEARNING OBJECTIVES**

- Students will understand the difference between covered malls and strip malls
- Students will comprehend the economic existence of a shopping mall
- Students will understand the role of mall management in managing emergencies
- Students will identify the construction features that affect fire spread in mercantile fires

**COURSE DESCRIPTION**

Shopping malls exist in various types and sizes. Fire departments at one time who only had to deal with farmland and limited housing are seeing shopping malls, in one form or another, develop in their district. Shopping malls enhance the local economy and livelihood of a municipality. Fires are often difficult to fight in these structures due to the heavy combustible loads presented by merchandise and packaging.

**TOPIC: Lumberyards**

**LENGTH:** 3 hours

**LEARNING OBJECTIVES**

- Students will select facts about the two major types of lumberyards
- Students will understand the need for an adequate water supply at a lumberyard fire
- Students will understand the effect of radiant heat at lumberyard fires and the need to protect exposures

## **COURSE DESCRIPTION**

Not all fire departments will have the opportunity to fight a fire in a lumberyard. However, the rare few fires that do occur in this type of occupancy will necessitate the response of mutual aid and a large commitment of apparatus. Water supply and fuel load are the key factors discussed in this class.

### **TOPIC: Windowless Buildings**

**LENGTH:** 3 hours

### **LEARNING OBJECTIVES**

- Students will understand the options for ventilation at windowless buildings
- Students will be able to select the specific occupancy use for windowless buildings
- Students will select safe tactics for operating at windowless buildings

## **COURSE DESCRIPTION**

In a single family dwelling fire, firefighters have the means to develop escape routes for survivability. In a windowless building, this option may be extremely limited and in some cases, non-existent. Certain types of commercial structures could be classified as a windowless building. Firefighters need to be trained on how to effectively operate with these hazards in mind and return home safely.