



INSTRUCT-O-GRAM

THE HANDS-ON TRAINING GUIDE FOR THE FIRE INSTRUCTOR

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FIRE OFFICER I

The fire officer has traditionally been promoted without much, if any, training or education on how to perform his or her new job. Experience usually has served as the training ground for making and implementing decisions at the emergency scene and in the station. Often existing officers cannot see the need for an officer training program. They learned through experience, therefore experience must be the best teacher. However, usually people who do not see the need for a training program can be brought on board when given the opportunity to relate their knowledge and experiences to a younger generation of officers. This series of Instruct-O-Grams will give departments a plan to follow that will provide new and existing fire officers a chance to learn what the organization and the fire service expects of them before having to find out through either performance of, more likely, non-performance of an expected task or action. The IOG's will follow NFPA 1021, Fire Officer Professional Qualifications.

This first IOG will cover actions expected from a Company Officer at an emergency scene. While a small percentage of the fire officer's time is spent on the scene, it is the most important and the most dangerous time. Leadership is helpful in the station. It is essential on the fireground. This class is not intended to be a replacement for experience. It is designed to help the officer and potential officer avoid potential errors, errors that under the

worst conditions could lead to the death or injury of a crewmember.

The objectives for this IOG are from NFPA 1021, Fire Officer Professional Qualifications. The instructor should review NFPA 1021 and appropriate sections of the IFSTA book, Fire Department Company Officer. It is expected that the student will have a good working knowledge of incident management and of strategy and tactics from the perspective of the firefighter. This pre-existing knowledge should be utilized in an interactive lecture format, drawing on the knowledge and experience of each student to keep up discussion on the topics.

Time Required

4 Hours

Terminal Objective

The fire officer, given a position at an emergency scene, will assign tasks and responsibilities at the emergency scene.

Enabling Objectives

1. The student will explain the difference between strategy and tactics.
2. The student will cite examples of when to operate in rescue mode, offensive mode and defensive mode

- B. Company Officer must work with given resources
- C. Company Officer must understand where to get more help if needed
 - 1. Mutual Aid
 - 2. Automatic Aid
 - 3. Other Agencies
 - a. Law
 - b. EMS
 - c. Utilities
 - d. Physical Needs
 - 1) Food
 - 2) Water
 - 3) Restroom Facilities
 - e. Other Local Options

VI. Incident Management

The students should be familiar with the incident management system used in their departments. Have them discuss issues such as when to implement incident management, who is typically in command, what functions are typically filled in their jurisdiction and what advantages an Incident Management System gives a response agency in dealing with an emergency.

- A. Used at all incident
- B. Provides for common terms and expectations
- C. Allows for growth of incident
- D. Accountability

RESOURCES

- Bruegman, Randy R., et al., On Guard, Making a Difference, The Fire Officer's Role
- Brunicini, Alan, Fire Command, Fire Protection Publications, Stillwater, OK, Compton, Dennis, When in Doubt, Lead!, Fire Protection Publications, Stillwater, OK
- Fire Department Company Officer, 4th Edition, IFSTA
- Leadership: Strategies for Company Success, National Fire Academy
- Leadership: Strategies for Supervisory Success, National Fire Academy
- Leadership: Strategies for Personal Success, National Fire Academy
- Shaping the Future, National Fire Academy

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on other benefits of membership.**

3. Mobile Radios
4. Portable Radios
5. Pagers
6. Alternative Communications

There are many other types of technology used by emergency responders to communicate on the scene or between agencies. Ask students to discuss the various types used in their jurisdiction. If any of the following are not brought up the instructor should ask how they could be used.

- a. Citizen Band Radios
- b. Ham Radios
- c. Telephone (Land Line)
- d. Cellular Telephones
- e. Fax Machines
- f. Computer Modems
- g. Mobile Data Terminal (MDT)
- h. Mobile Data Computer (MDC)
- i. Global Positioning System (GPS)

B. Fireground Communications

The typical fireground or other emergency scene is a very difficult place to maintain high quality communications.

1. Direct Orders

A direct order is given by a fire officer to a subordinate officer. Remember, in the Incident Command System rank in the station does not always correspond to rank on the fireground. A Lieutenant may give a direct order to a Captain if their roles on the scene place the Captain in a subordinate position to the Lieutenant. It is expected that a direct order will be carried out as given. The Company Officer must often decide HOW to carry out the order. But he or she is not allowed to decide whether or not to carry it out. The only exception is a safety issue that the person giving the order is not aware of or does not understand fully.

2. Directives

Directives usually come in the form of a request. It is usually expected that a directive will be carried out as given. A directive is used in non-emergency situations where a direct order would not be appropriate or considered polite.

3. Accountability

The primary responsibility of the Company Officer is always the safety of his or her crew. An accountability system should be used at all incidents. Have the students discuss the types of accountability systems used by their departments. The instructor should be prepared to discuss one or more types of accountability systems in case there is no system currently being used in the area.

ACTIVITY

If possible get an audio tape of the radio traffic from an emergency call from the local dispatch center. Listen to the tape with the class and lead a discussion on the radio communications. Examples of topics for discussion include: radio SOP's followed or not, safety concerns noted, benchmarks noted, Incident Management followed, chain of command and any other topic of particular local interest. The instructor needs to be diligent to keep the discussion on issues and facts rather than personalities. Depending on the local climate the instructor may need to have an audio tape from another jurisdiction to use for this activity.

V. Resources

Available resources often help determine initial strategy and the tactics used to accomplish it. Have the students discuss the staffing levels on their departments and in their area. They should know what mutual aid is available and how to call for it. They should also discuss what other agencies routinely work with them and what agencies they may be called upon to work with under unusual conditions.

- A. Local conditions determine departmental staffing

B. Nature of the Incident

Different types of incidents have different potential risks. For example, when responding to a medical incident the Company Officer does not typically evaluate the structure for possibility of imminent collapse. However, each incident still has the same three basic priorities of life safety, incident stabilization and property conservation. The Company Officer is responsible to make sure that no member of the crew is exposed to any unnecessary risk.

C. The Occupancy

1. Building Construction

a. Types of Building Construction

There are many types of construction that the Company Officer should be familiar with. It is important to remember that every building ever built is fighting against gravity to stay up. Many types of construction that are very strong under normal conditions can fail catastrophically under fire conditions.

1) Type I

Type I construction is often called "Fire Resistant". These buildings are designed to confine a fire into a given area. Occupants who cut holes in walls, block open doors or open floors and ceilings can subvert this design. The contents of these buildings are typically combustible and provide the greatest fire load.

2) Type II

Type II construction is also called "Noncombustible". Type II buildings are similar to Type I, except that the ability to resist fire is less. Again, the contents are combustible and can provide a large fire load.

3) Type III

Type III construction is commonly referred to as "Ordinary Construction." The exterior structural members are of noncombustible or limited combustible materials but the interior walls, ceilings, floors and roofs can be made entirely of wood. In addition to the contents, the actual structure becomes part of the fire load.

4) Type IV

Type IV construction is also called "Heavy Timber". The exterior structure is of noncombustible or limited combustible materials. The interior supporting structure is made of wooden beams typically 8 inches in the smallest dimension.

5) Type V

Type V structures are typically wood frame buildings. It is typically used for residences and small mercantile occupancies. These buildings can be up to six stories high. The entire building, structural members and contents, becomes part of the fire load.

b. Types of Roofs

1) Flat Roofs

2) Pitched Roofs

3) Arched Roofs

4) Concrete Roofs

5) Metal Roofs

c. Lightweight Construction

2. Occupancy Types

a. Fuel Loading

b. Fire Protection Systems

c. Water Supply

IV. Communications

A. Radio Communications

The instructor should learn about the local radio communication system. The students should lead a discussion on radio systems in use. A Company Officer should understand the radio system in use in the jurisdiction. He or she should also understand the difference between a stationary base radio, a mobile radio in an apparatus and a portable radio carried by hand and when each one is typically used. Many departments use pagers for the initial notification of an emergency. If any students are from a department using pagers, have them discuss the pros and cons of such a system.

1. Local Radio Frequencies

2. Base Radios

4. Does the benefit for interior operations justify the risk? Yes — Offensive Operation

F. Defensive Mode

A defensive attack is warranted when there is either little to gain from an interior attack or the risk to interior crews will be too great. A fire in an empty warehouse with no life safety issues should usually be fought with a defensive strategy. A nursing home with high life safety problems but with an imminent collapse should also be a defensive operation. Unfortunately for the fire officer, most cases are hard to call.

1. Exterior Operation
2. Conditions unsafe for firefighters to be placed in the interior
3. Risk/Benefit ratio
4. Does the benefit for interior operations justify the risk? No — Defense Operation

II. Tactical Plans

Tactical plans are the means by which the Company Officer carries out the strategic plan developed by the Incident Commander. Tactics are determined by the Company Officer based on standard operating procedures, knowledge and experience. While keeping in mind that the company officer is the one to determine the tactics to be used, he or she should not ignore or minimize the experience of others in the crew. Final decisions, however, must always rest with the Company Officer.

- A. The Company Officer determines tactics based on priorities and a given strategy.
- B. Following Standard Operating Procedures

ACTIVITY

Divide the class into groups. Have the students use their department's Standard Operating Procedures to determine response, strategy, and tactics at a simulated fire scene. If students are from a department which does not have written SOP's the instructor should have some samples to use. Have all groups present their activity to the remainder of the class and be prepared to answer questions and discuss their actions.

III. Size-Up

A. Environmental Considerations

A number of variables can be grouped into environmental considerations. Each of them must be considered in the initial size-up and determination of strategy.

1. Time of Day

People are more likely to be at home in the evening and nighttime hours. A residential fire during those times is more likely to have a high life safety risk to the occupants. Businesses are more likely to be occupied in the daytime and evening hours. An aggressive interior attack would be more likely when people are in the structure. Conversely, when the structure is unoccupied the fire is likely to have gotten a good head start that would make an interior attack more risky.

2. Temperature

Most places experience very hot or cold ambient temperatures. Many places have both extremes. The instructor should ask the class for examples of how temperature extremes adversely affected an emergency response.

3. Wind

Wind speed and direction can affect the behavior of smoke and other combustion products. Smoke appearance on arrival and ventilation profiles may be altered. Responders may also become fatigued much more easily.

4. Rain/Snow, Other Precipitation

Precipitation may limit the amount of work that a limited number of crews can perform. It can also limit visibility and make responding to the scene much more dangerous and slow.

5. Exposures

An exposure may drastically alter the initial strategy of the incident. It may be appropriate to write off the structure involved in order to save one or more exposures.

3. The student will utilize SOP's to determine tactics to be used to help implement a given strategy.
4. The student will state at least ten things to consider in size-up.
5. The student will explain how the local radio system works during an emergency incident.
6. The student will explain the local accountability system.

I. Strategic Plans

The strategic plan is how the Incident Commander has decided to have crews deal with the emergency incident. A strategic plan is made on the command level and carried out on the company officer and/or company level. It is therefore, very important that the company officer understand how to determine and implement effective tactics to carry out the strategic goals of the emergency scene.

- A. The company officer is given the strategy by the Incident Commander.
- B. Identifying the Correct Strategy
 1. What is the extent of the emergency?
 2. What is the effect of the emergency on the environment?
 3. Are there any viable victims?
 4. Is there any property you can save?
 5. Can emergency crews safely enter the affected area?
 6. Are there enough resources available to be successful?

C. Fireground and Emergency Scene Priorities & Benchmarks

There are three priorities on the emergency scene. The first priority is life safety, of both the responders and the public. The second priority is to stop the incident from getting any worse and to take control of it rather than letting the incident control the response. The last is to conserve property and stop destruction of it. There are "benchmarks" or key words used to communicate to the Incident Commander that each of these priorities has been met. "All clear" signifies that the primary search has been completed

"Under control" tells the Incident Commander that the incident has stopped getting worse and is now being controlled by responders rather than controlling their actions "Loss stopped" means that all actions taken by responders to control or extinguish the fire have been completed.

1. Life Safety — "All Clear"
2. Incident Stabilization — "Under Control"
3. Property Conservation — "Loss Stopped"

D. Rescue Mode

Sometimes the number of personnel may limit the emergency response to either being able to attack the fire or rescue trapped occupants but not both. The Company Officer must make the call of which one will reap the largest benefit with the smallest risk when staffing levels are not sufficient to do both. There is no easy answer; each decision is best made on the scene after evaluating the circumstances of the emergency.

E. Offensive Mode

When the incident commander decides to have crews make an offensive attack on the fire several things must be considered. Since an offensive attack is made from the interior it is inherently more risky. The incident commander must consider whether or not crews on the interior will actually be able to make a difference in the emergency. Will they do anything inside that could not be done from the exterior? The Incident Commander must also consider whether the benefit to the incident will justify placing people at risk on the interior. If there is much to gain from an interior operation then it is justifiable to take a greater risk to obtain that greater gain. If there is little or nothing to gain then there is no justification for an interior attack.

1. Interior Operation
2. Firefighters on the interior will have a positive impact on the situation
3. Risk/Benefit ratio