

LESSON 6

TRUCK COMPANY OPERATIONS

Objectives

- The Student Shall:
 - Identify 9 Truck Company Objectives
 - List, in order, Building Search Priority Areas
 - List, in order, the routes of victim removal
 - Identify and compare the elements of primary and secondary search
 - Define the 3 classes of rescue

Objectives

- The Student Shall:
 - Identify 5 Laddering objectives
 - List 7 advantages gained by proper ventilation
 - State the main objectives of both salvage and overhaul
 - Identify and discuss 5 Overhaul Safety Considerations
 - Identify 9 criteria for proper apparatus placement

Truck Company Objectives

- Search and Rescue
- Ventilation
- Laddering
- Forcible Entry
- Check for Fire Extension
- Salvage
- Overhaul
- Utility Control
- Ladder Pipe Operation

4

The Tactical Plan

- 1. What's Needed to be Done?
- 2. What's Needed to do it?
- 3. Who's Needed to do it?
- 4. How is it to be Done?

5

Incident Priorities

- Life Safety
 - Fire Service Personnel
 - Fire Victims
 - Other Emergency Personnel
 - Spectators
- Incident Stabilization
 - Interior Exposures
 - Exterior Exposures
- Property Conservation

6

Forcible Entry



What is the Quickest, Cheapest, and Most Effective Way to get in There?

7

Forcible Entry Pre-Fire Information



- Which Buildings are Always Open at their Street Entrance?
 - Hotels, Apt. Bldgs., Some Office Bldgs.
- Which Buildings are Locked at the Street and also may Have Lobby Doors that may Require Forced Entry?
- Which Buildings may be Difficult to Force?
 - Fox Locks, Police Locks, Roll-down Steel Gates

8

Forcible Entry Pre-Fire Information



- Where is the Best Place to make Entry?
 - Generally the Front is the Easiest, but there can be Exceptions
- Is There a Security Guard on Premises or will one Arrive with a Key Shortly?
- Results of Pre fire Inspections can be Used to I.D. the Need for Special Forcible Entry Tools

9

Search Duties

- Locate and Remove trapped Occupants
- Ventilate Where Needed
- Temporarily Prevent Extension of Fire By Closing Doors & Windows
- Check for interior and Exterior Fire Extension
- When Necessary, Help Locate the seat of the Fire

10

Search Size-Up

- What Type of Occupancy is involved?
- What Time of Day is it?
- Is the Building a Closed-Up Dwelling with heavy Smoke Showing?
- Are Cars Parked in the Driveway or are there any other indications of an occupied dwelling?

11

Search Size-Up

- Are there Occupants visibly calling for Help?
- Can calls be heard from Inside the structure?
- Is fire showing? Where?
- Given the Building's Interior Construction, in which Direction will Fire travel most Rapidly?

12

Rescue Considerations

- The Number of people in the fire building
- The paths by which fire and smoke can reach them
- The routes available to truck crews for reaching people and removing them from the building

13

Areas of Greatest Danger to Occupants

1. Fire Room / Fire Floor
2. Fire Room / Fire Floor Immediately Above
3. Highest Floor
4. Floors in Between
5. Don't Forget Basement/Cellar

SEARCH PRIORITIES

14

Classes of Rescue

- Class I Rescue
 - Rescuer knows victim's location
 - Neither rescuer or victim is in great danger
 - Examples:
 - Lock-out
 - Evacuation of Uninvolved exposure

15

Classes of Rescue

- **Class II Rescue**
 - Rescuer knows victim's location
 - Removal requires rescuer and victim to be endangered
 - Examples:
 - Rescue of victim from window
 - Tech rescue where victim location can be seen

16

Classes of Rescue

- **Class III Rescue**
 - Rescuer does not know victim's location
 - Removal exposes both rescuer and victim to extreme danger
 - Examples:
 - Reported victim / unknown location
 - Often conducted under deteriorating conditions

17

Routes of Victim Removal

- The more removal deviates from the normal routes of egress, the more Personnel required, the more time it takes, and the more danger involved
 1. Interior Stairs
 2. Fire Escape
 3. Platform or Aerial
 4. Ground Ladder
 5. Rope

18

Search Types

- Based on Fire conditions and Occupancy
 - Perimeter search
 - Light Scan Search
 - Lifeline Search
 - Thermal Imaging Equipment

19

Principles of search

- Primary search
 - Quick
 - No water on fire
 - Conditions Worsening
- Secondary search
 - Slower
 - Fire darkened down
 - More Through

20

Laddering Objectives

- Rescuing trapped Occupants
- Roof operations
- Access to Upper Floors via windows
- Emergency escape for Interior Crews
- Replacing Burned-out stairways

21

Ladder Operations

- Gaining Access to fire buildings
- Replacing Burned Out stairways
- Removing Trapped Victims
- Removing people from Crowded fire escapes
- Getting from one roof to another (Bridging)
- Bridging Fences

22

Ladder Operations

- Ventilating Windows
- Transporting Injured, in place of Litters
- Reinforce weakened building features
 - Weakened or missing floors
- Hoisting (Used with a pulley as a fulcrum to hoist a Stokes basket)
- Elevated Streams

23

Ventilation

The systematic removal of fire gases from a structure while replacing them with fresh air

24

Ventilation Operations



VENTILATION--GENERAL

- BENEFITS

- Prevents mushrooming
- Allows forces to gain/maintain entry
- Improves visibility
- Increases safety on interior
- Controls primary damage

Ventilation Operations



VENTILATION--GENERAL

- Venting for life- - ærequired
 - Vent/ enter/search
 - Draw products of combustion away from life hazard
 - May spread fire
 - Utilize natural openings
 - Scuttles / skylights
 - Bulkhead doors in MD's

Ventilation Operations



VENTILATION--GENERAL

- Venting for fire- - coordination
 - Vent opposite attack line advance
 - Allows access into a structure to locate and attack fire
 - Carried out as soon as resources are in place to attack fire
 - Requires proper coordination and solid SOP adherence

Advantages to Proper Ventilation



- Reducing danger to trapped occupants and thus extending the time available to firefighters for rescue operations
- Increasing visibility for both firefighters and occupants, thereby decreasing the danger inherent in other fireground operations and increasing fireground safety

Advantages to Proper Ventilation



- Permits quicker and easy entry to allow search operations or to advance lines
- Minimizes time required to locate seat of the fire
- Minimizes the time required by truck crews to find areas to which fire has spread within the building

Advantages to Proper Ventilation



- Decreases or stops the spread of fire
- Reduces the potential for flashover or backdraft

Ventilation Considerations

- 1. Is there a need for ventilation?
- 2. Where is the ventilation needed?
- 3. What type of ventilation is needed?
 - Natural or mechanical
 - Vertical or horizontal
- 4. What are the life hazards?
- 5. Location and extent of fire

31

Roof Operations

Roof Access

- **Building types:**
 - Attached - Unattached
 - In regard to roof access, attached buildings of unequal height shall be treated as unattached buildings
 - » Initial Scene Assignments dictate duties

32

Roof Operations

ROOF ACCESS PRIORITY-- ATTACHED M.D

- Adjoining Bldg. -- same height
- Aerial device
- Lower floor of fire bldg to rear fire escape, up gooseneck
- Rear fire escape from ground

33

Roof Operations

ROOF ACCESS PRIORITY-- UNATTACHED M.D

- * Attchd bldgs of diff ht = Unatt
- Aerial
- Lower floor of fire bldg to rear fire escape, up gooseneck
- Rear fire escape from ground

34

NEVER
**ASCEND TO THE
ROOF VIA THE
INTERIOR STAIRS
OF THE FIRE
BUILDING!!!**

35

Roof Operations

RADIO REPORTS FROM ROOF

- Roof construction
- Conditions in the rear and sides
- Rescue situations
- Heavy Roof Objects
- Locations of shafts and fire walls
- Actions taken
- Notify CP when leaving roof

36

Roof Operations



Cutting the Roof

- Cut as directly over the fire as is safely possible. Consider:
 - Fire Conditions
 - Wind Direction
 - Building Orientation
 - Roof Construction
 - Personnel
 - Roof Slope

Roof Operations



ROOF SAFETY GUIDELINES

- Preplan roof types / hazards
- Study building construction
- Size up the roof before you go there
- Work in pairs if possible
- Have at least 2 ways off

Roof Operations



ROOF SAFETY GUIDELINES

- Be sure where you are about to step will hold your weight
- Use extreme caution when working near the roof edge, especially flat roofs without parapets

Roof Operations

ROOF SAFETY GUIDELINES

- Never operate between your cut and the roof edge
- Beware the "Circle of Danger"
- Never let a live, spinning saw operate more than 6" above the roof deck

40

Property Conservation

- Salvage
- Overhaul
- Utility Control
- Fire Cause determination

41

Salvage and Overhaul

- Main objective of salvage is to protect the building and its contents from water damage
- Main objective of overhaul is make sure the fire is out

42

Overhaul

- Overhaul operations begin as soon as the main body of *fire is knocked down!!!*
- Tools include:
 - Hooks / Axes / Halligan Tools
 - Heat detecting equipment
 - Thermal imaging equipment

43

Areas of Possible Rekindling

- Walls and ceilings
- Shafts
- Cabinets, closets, and compartments
- Window and door casings
- Soffits and overhangs
- Any area above the fire

44

Overhaul Safety

- Wear SCBA
- Conduct a pre inspection before overhaul begins
- Assign fresh personnel to overhaul duties (*Personnel permitting*)
- Mark and barricade hazardous areas
- Provide lighting in necessary work areas

45

Salvage

- Salvage begins as soon as the fire attack begins (Personnel permitting)
- Tools include:
 - Salvage Covers
 - Portable pumps
 - Mops / Brooms
 - Siphons

46

Control of Utilities

- HVAC systems can circulate fire and smoke to uninvolved areas
- Gas and oil supplies to heating and cooking appliances
- Control of electrical supplies and devices
- Water flowing from broken pipes can add unnecessary weight to an already weakened building (also unnecessary water damage)

47

Apparatus Placement

- Maximum Advantage
- Use only companies that are *necessary*
- Allow for options

48

Apparatus Placement Based on:

- SOP's
- Pre planned staging procedures
- Fire officer's decision
- Direct orders from the Incident Commander
- Size up
- Rescue Conditions
- Exposure Protection
- Fire Attack
- Ventilation needs

Summary

- Truck Company Objectives
- Building Search Priorities
- Routes of victim Removal
- Primary / Secondary Search
- Laddering Objectives
- Ventilation Advantages
- Salvage and Overhaul
- Apparatus Placement Considerations

Next Lesson

- Lesson 7: Midterm Exam
 - Review all Handouts
- Assigned Reading for Lesson 8:
 - Fireground Strategies
 - Ch. 5
 - Pg. XXX, "Guide for Answering Questions"
