Hyattsville Volunteer Fire Department

Truck Company Operations

History

History

- The HVFD has operated a ladder company since 1904. As a member you are now apart of this history and have a responsibility to uphold this tradition.
- The ladder truck was known early on as the “Lumber Truck” or the fire ground “Workhorse.”
- Despite advances in technology, truck work is still and will remain both physically and mentally challenging

Priorities of the Truck Company

- The Truck Company has one basic function at any working fire and that is to facilitate the Engine Company's advance and extinguishment of the fire.
- These functions are carried out through an assortment of diverse tactics and Standard Operating Procedures (SOP's). These tactics can vary greatly from department to department or within companies in the same department. They will also vary on the building type and the hazard presented at time of arrival.
- These tasks can be reduced to the basic traditional truck company operations consisting of **Ventilation, Entry and Search.** Performing these tasks are mandatory at **every** fire where firefighters will be conducting an interior attack.
- Quality Training, SOP's, Communication and Teamwork will increase the overall efficiency safety and effectiveness of all members on the fire ground.

Responsibilities of the Truck Company

- **L**adders
- **O**verhaul/Opening Up
- **V**entilation
- **E**ntry
- **R**escue *Always our # 1 priority*
- **S**earch/Salvage
- **U**tilities

- "Lovers-U" is an easy acronym to remember your responsibilities on the fireground.
- It is the responsibility of ALL members to perform a size-up to decide on which objectives need to be performed and prioritize them accordingly.

Fireground Priorities "RECEO"

- **R**escue, **E**xposure, **C**ontainment, **E**xtinguishment & **O**verhaul
  - Officers need to understand "RECEO" and apply to the building type and hazard present. Ultimately changing the initial riding assignments in order to effect rescues

- Rescue
  - Only 2 options to choose from:
    - #1 Put the fire out (Engine Company)
    - #2 Take the people away from the fire (Truck Company)

Building Construction Type I (Fire-Resistive)

- Fire-resistive buildings may be used for many different occupancies, such as office buildings, shopping centers, or residential dwellings.
- The critical structural requirement for Type I buildings is that all walls, floors, roofs, and supporting members must be made of noncombustible materials and have varying levels of fire resistance ratings.
- Common path of fire spread is autoiexposure (vertical window jumping) or through unprotected (illegal) floor openings

BUILDINGS THAT ARE TYPE I:

- 3700 East-West Highway
- 6505/6525 Belcrest Road
- High-Rise Dorms at U.Md

Building Construction Type II (Non-Combustible)

- Noncombustible buildings may be used for many different occupancies, such as office buildings, warehouses, and automobile repair shops.
- The critical structural requirement for Type II classification is that walls, floors, roofs, and supporting structural members must be made from noncombustible or limited-combustible materials.
- Structural elements, especially roof systems, are usually not required to have a fire resistance rating.
- Non-Rated Type II buildings (i.e. IIB) are usually unprotected metal frame and lose their structural robustness when exposed to fire conditions.

BUILDINGS THAT ARE TYPE II:

- PG Plaza
- Safeway

- Type IIB and Type VB are the two most common construction types being built in our area

Building Construction Type I and Type II

- Type I and Type II buildings are generally interchanged on initial size-up since it is difficult to call from the exterior of the building
- For size-up purposes, single-story and mid-rise buildings are non-combustible construction without fire-resistive structural members
- Appropriate size-up would be ‘non-combustible building’

Building Construction Type III (Ordinary)

- An ordinary-construction building may be used for many different occupancies, such as a retail sales store on the first floor with a dwelling unit on the second floor.
- The critical structural requirement for Type III classification is that the exterior walls must be constructed of noncombustible materials, most commonly masonry or stone. Interior walls and supporting structural elements are typically made from wood
- Newer buildings can achieve ordinary construction utilizing lightweight steel studs and wood roof systems

BUILDINGS THAT ARE TYPE III:

- 6200 Belcrest Road
- Kirkwood Apartments
- 4201-4209 Ogelthorpe Street

Building Construction Type IV (Heavy Timber)

- Heavy Timber building may be used for many different occupancies and usually are either rehabilitated industrial buildings or places of worship.
- The critical structural requirement for Type IV classification is that the exterior walls must be constructed of noncombustible materials, most commonly masonry or stone. Interior walls and supporting structural elements are typically made from large dimensional wood, which maintains strength even during prolonged burning.

BUILDINGS THAT ARE TYPE IV:

- Monastery
- Adelphi Mill

Building Construction Type V

- A wood-frame building may be used for many different purposes, such as single-family dwellings, multiple-family dwellings, restaurants, or retail sales stores. There are five distinct methods of wood-frame construction: log, post-and-beam, balloon, platform, and plank-and-beam

Building Construction Balloon-frame

- Balloon-frame construction is characterized by long, continuous wall studs that span from the foundation of a structure to the roof. The placement of floor joists on top of ribbon boards creates a void space, where fire can extend quickly throughout the building. Also, many balloon-frame construction buildings were built without a fire stop.

- Signs of balloon frame include exposed basement walls without windows and side exterior walls with few windows or windows less than 16” wide

** Balloon frame construction is commonplace within our first due*

Building Construction

Tactical Priorities for Balloon Frame Construction

- Size-up- Officer should note this style of construction from his initial size-up. It should be noted that an active basement fire may display heavy smoke from the chimney or fire from the attic that has extended from the basement through the vertical voids of the exterior wall (s). A check of the basement shall be a **PRIORITY** then all other subsequent floors

- Locating Fire- Aggressively opening up void areas where fire is located and paying specific attention to the area above.

- Ventilation- Vertical ventilation is paramount in routing the fire out of the building. Ventilated over hazard area and at the highest point possible to assist with mitigating fire spread.

"The Building is your Enemy--KNOW your enemy before the battle." –Frank Brannigan

Positioning of Apparatus

Positioning

"Go around the block, cut a tree, remove a fence, jump a curb, position, position, position…Taking 3 minutes in the beginning to get the best spot may help dictate how the next 3 hours of your life will go."
-Luke Alar
Past HVFD Asst. Chief/President

- Positioning of the truck is directly proportional to the effectiveness of the truck company.
- The driver should make every attempt to position the truck where the aerial can be used.
- Positioning the truck in close proximity to the incident allows resources to be utilized quickly; i.e. ladders, fans, lights etc.
- Take the time to do a quick size-up; you only have one shot to properly position the apparatus


TRUCK
6


COLUMBUS FIRE

Forcible Entry

Forcible Entry

- Forcible Entry: Assisting the fire attack by allowing access to the building for the engine companies.
- Consider Building type for your tool selection.
- Residential Homes often have wooden inward swinging doors.
  Tool possibilities: Halligan, flathead axe/sledge.
- Multiple Occupancy buildings often have inward swinging metal frame doors.
  Tool possibilities: Halligan, flathead axe/sledge, hydra-ram
- Commercial occupancies often have outward and inward swinging metal frame doors.
  Tool possibilities: Halligan, flathead axe/sledge, hydra-ram and rescue saw w/ metal cutting blade

Ground Ladders

"Sometimes you take ladders through the nearest alley, sometimes through the side yard, and I've even taken ladders through the fire building and out the back."- **The District of Columbia Firefighter's Project**

Ground Ladders

- A good truck company should pride themselves in their ladder work; taking whatever measures are needed to allow ladders to be utilized
- Throw ground ladders with a purpose!!
  - (I.e.: Rescue, Entry, Etc.) Simply placing a ladder against a building is not acceptable
- Your ladder work on the fire ground is on display for all to view

Ground Ladders

- Need for Ground Ladders:
  -Rescue
  -Used to ventilate horizontally
  -2nd means of egress for crews inside
  -Access to roofs where aerial
  cannot be utilized
  -Alternate entry points into building

Ground Ladders

- Ladders should be placed in the following order:
  - Obvious Rescues
  - Fire Floor
  - Floor Above the Fire
  - Top Floor
  - Roof
  - Floor Below the Fire

- Be sure to place ladders as assigned by SOP's, especially 2nd due; regardless if access cannot be gained by ladder truck.

Ground Ladders

Caution:

- When a ground ladder is setup at it's properly designed angle (75° degrees) on a smooth surface, and all locks (dogs) are in place, a total of 750 pounds can be placed on the ladder safely (the 'working load'). This is for the whole ladder; so if you have a 16' roof ladder or 45' three-section ladder, the maximum that should be on a ground ladder is THREE persons.
- A ladder at 45° degrees rather than 75° degrees can bring the ladder to the maximum capacity of TWO.
- During inclement weather, portable ladders can become slippery and or iced over creating a safety issue
- Beware of overhead obstructions at all times

Ground Ladders

- Were the ground ladders used effectively here?
- How could they have utilized better?
- Maximize the use of your ladders to their full potential.

Ground Ladders

- Be selective in the placement of ground ladders
- We must attempt to anticipate fire spread, be sure to perform your own size-up

Ground Ladders

"The probability of someone watching you is proportional to the stupidity of your action." - Author unknown

Ground Ladders

- The most important lives we may save may be our **<u>OWN!!</u>**

Ventilation

Ventilation

Why do we ventilate?

- Allows Engine Company to find seat of the fire quicker
- Reduces the potential of flashover, rollover and backdraft
- Creates a more tenable environment for victims
- Accelerates the search for victims
- Increases the overall safety of the incident

Ventilation

- Vertical ventilation is the most effective form
  - Prevents “mushrooming”
  - Releases superheated gases
  - Decreases the chances of flashover, rollover and backdraft.
- Utilize this practices as often as possible
- Where do we ventilate?
  - At the highest point
  - Directly over the fire area

Ventilation

- "Vent for Fire or Vent For Life"
- Vertical Ventilation
  - Routes Fire out of building
  - Assists with keeping fire in check
- Horizontal Ventilation
  - Accomplished quickly
  - Releases smoke and introduces oxygen

Ventilation

- Locating body of fire
  - Inspection holes
  - Pressurized smoke
  - Bubbling tar
  - Melted snow
  - Take note of smoke color, volume and pressure

Ventilation

- Q: What should a truck company consider as a potential tactic to be employed in this situation?

A: Trench cut

Ventilation

- Q: Is there a need for vertical ventilation here?

A: No

Ventilation

- Vertical ventilation has many associate hazards
- Be mindful of your actions and the actions of your crewmembers
- Stay aware of your surroundings
- Smoke pushing from around flashings and or parapet walls may be indicative of fire in the cockloft
- Separation between the roof and parapet signifies structural weakness

Ventilation

Positive Pressure Ventilation (PPV)

-Effective form of Ventilation.

-Should only be utilized when fire is confirmed out and you are authorized by the Incident Commander.

Poor Use of PPV

Notice PPV fan placed in the doorway while heavy smoke still showing

Search

Search

- Searching should only be done within the area the truck has been assigned, open windows as you go.
- Search in a coordinated manner and communicate with other members; specifically your OIC.
- If there is a known life hazard, members of the truck shall communicate this and adjust assignments to address the life hazard(s)
- Truck members should consider “Vent, Enter Search” (VES) techniques if victims exact location is known and is accessible by aerial or ground ladders.

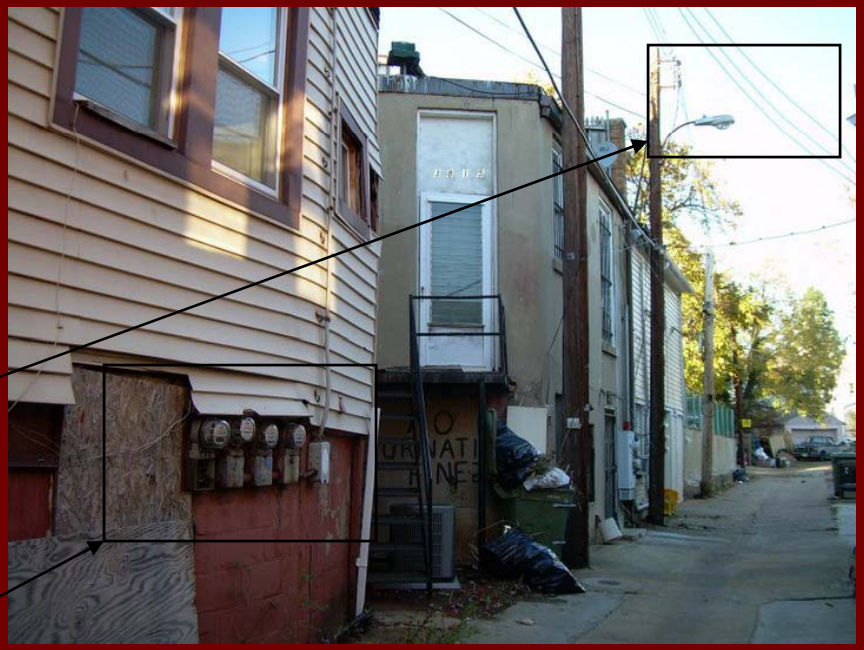
Utilities

- Securing utilities will ensure safety of all personnel operating at incident.
- Eliminates major sources of fire

Utilities

Allow the utilities to assist you in your size up:

- Identifying gas/electrical meters can quickly give members an idea if the building is a single or mixed residency
- Noting the location of overhead wires to the house will also give a clue to the approximate location of the electric panel
- Note that occupancies with multiple meters could be an indication that the single occupancy has been divided into multiple occupancies



SOP's

- Standard Operating Procedures (SOP's) are a necessity for safe and efficient fire ground operations. Members must remain disciplined at all times and perform the functions which they are assigned. Failure to do so will jeopardize fire operations. It is imperative that members carefully monitor radio traffic throughout the duration of the incident.

PG County SOP's

- GENERAL PROCEDURES
  - A. Normally the Truck will be positioned as follows.
    - 1st Due Truck: side Alpha (crew goes to fire floor)
    - 2nd Due Truck: side Charlie (crew goes above fire)
    - 3rd Due Special Service: RIC TEAM
    - 4th Due Special Service: DISCRETION OF THE INCIDENT COMMANDER

- Pre-Plans may indicate that the Truck should position itself differently.

PG County SOP's

- The location of the fire, the need to utilize the aerial ladder, and the configuration of roadways may warrant that the Truck be positioned differently, i.e., areas of limited access, parking decks, inclines.
- The Incident Commander may direct the Truck to take an alternate position.

HVFD SOP's

Truck 1 Riding Assignments

Goal:

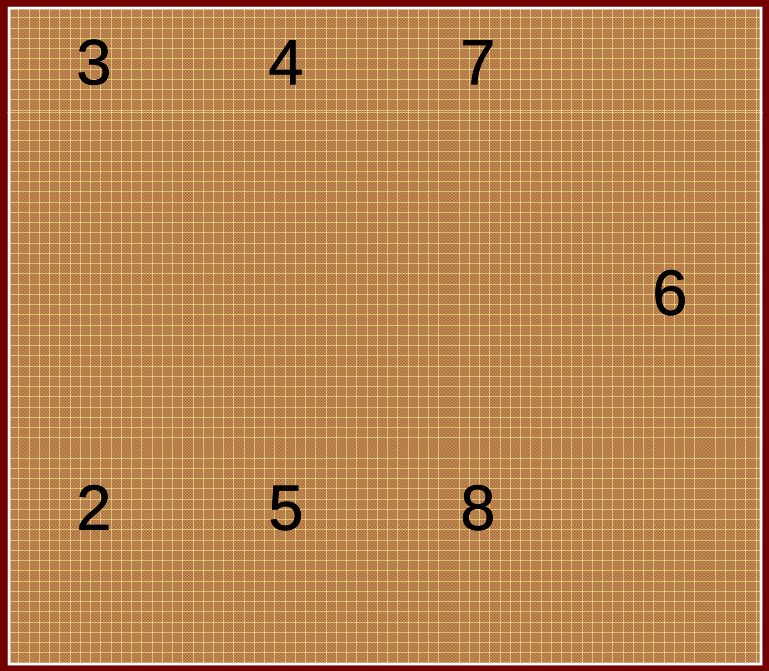
Maximize the efficiency and effectiveness of all members of the truck company

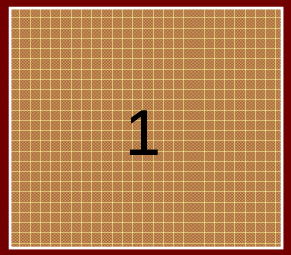
Purpose:

Allowing the actions of your crew to be more controlled, coordinated and efficient, mitigating duplication of efforts and freelancing.

HVFD SOP's

- In order for these duties to be accomplished, specific duties are assigned to members riding a given position on the truck.





HVFD SOP's

1. TILLER

Works with the DRIVER.

Primary Duties: Carries portable radio, places aerial/ground ladders and performs outside work, including ventilation. Prepare lights and fans.

Aerial Duties: Is first up aerial ladder with portable radio to perform rescue or ventilation.

2. DRIVER

Works with the TILLER.

Primary Duties: Carries portable radio, places aerial/ground ladders and performs outside work, including ventilation. Prepare lights and fans. Perform utility control.

Aerial Duties: Sets left side wheel chock and outriggers, responsible for leveling the truck, and sets up the aerial ladder. Assists TILLER on the roof with ventilation.

HVFD SOP's

3. OFFICER

Works with IRONS and HOOK & CAN

Primary Duties: Responsible for supervising crew and ensuring manpower accountability. Carries portable radio, a forcible entry tool, thermal imager, building master keys as needed and personal flashlight. Determines location of the main body of fire so he can direct the search, rescue, ventilation, salvage, and overhaul efforts.

4. IRONS

Works with the TRUCK OFFICER and HOOK & CAN

Primary Duties:Carries the halligan bar and flat head axe, hydra-ram and personal flashlight Ensures that engine company has immediate access into the building.

HVFD SOP's

5. HOOK & CAN

Works with the TRUCK OFFICER and IRONS.

Primary Duties: Carries the hook & Can along with personal flashlight.

6. LADDERS/ OIC Outside team

Primary Duties: Carries portable radio and personal flashlight. Places ground ladders and performs outside work, including horizontal ventilation. Prepare lights and fans. Assumes OIC responsibility for TEAM 2

HVFD SOP's

7. LADDERS/OUTSIDE TEAM

Primary Duties: Carries portable radio and personal flashlight. Places ground ladders and performs outside work, including horizontal ventilation. Prepare lights and fans. Perform utility control

8. LADDERS/OUTSIDE TEAM

Primary Duties: Carries portable radio and personal flashlight. Places ground ladders and performs outside work, including horizontal ventilation. Prepare lights and fans. Perform utility control

HVFD SOP's

Positions, 8 Men Crew

- Driver
- Truck Officer
- Tillerman
- Force Entry
- Hook / Can
- Ladders
- Ladders
- Outside Firefighter (OFF)

- **Positions, 6 Men Crew**
- Driver
- Truck Officer
- Tillerman
- Force Entry
- Hook / Can
- Ladders
- *Ladders and Tillerman assume ladder responsibilities for the building sides due, and Side 3 on Street Assignment.*

HVFD SOP's

Positions, 5 Men Crew

- Driver
- Truck Officer
- Force Entry
- Hook / Can
- Ladders
- *Ladders and Tillerman assume ladder responsibilities for the building sides due, and Side 3 on Street Assignment.*

Positions, 4 Men Crew

- Driver
- Truck Officer
- Tillerman
- Force Entry

Tillerman and Driver assume ladder responsibilities for the building sides due, and Side 3 on Street Assignment.

Training

“Train Often and Prepare Relentlessly…!”

"Let no man's ghost return to say his training let him down.“
– Fire Service adage

Traits of a good Truck Company?
Well Trained
Disciplined
Focused

Scenario # 1

Scenario # 2

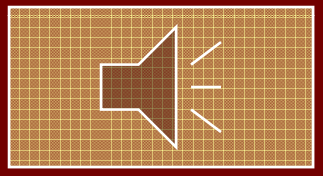
Scenario # 3

Scenario # 4

Scenario # 5

Scenario # 5 (Cont.)

9309 19th Ave
Apartment Fire w/ People Trapped



<u>Box 34-09:</u> Engines 34, 94, 44, 11 Trucks 92, 12 RS 1