

No. 17: Aerial Apparatus Positioning

Introduction

Over the years we have seen a great number of changes in the fire service; however, one thing that has not changed is the belief that arriving units need to "leave the front of the building open for the aerial apparatus to set up."

The positioning of the aerial apparatus is a critical function on the fireground. For this reason it is fundamentally important that both the driver and officer perform a size-up to determine which of the following functions the aerial device will be performing:

- Ventilation
- Rescue
- Access to upper floors
- Master stream operations

Ventilation

There are basically two different style roofs that we will be operating on, flat roofs and pitched roofs.

For the flat roof, position the apparatus far enough away from the structure so access to the roof can be performed from the tip of the ladder whenever possible. This will make for a safer dismount from the ladder for the firefighters as they will not have to climb over the side rails of the ladder. In addition, the angle of the ladder will not be a steep.

When positioning for a pitched roof, if the roof has a valley, you will be better off with the ladder being in line with the valley. You might hear the term "shooting the valley" used for this maneuver. By placing the ladder in this position it will allow access to the two different ridges, from which you can ventilate from.

Rescue

If you have advance warning that you are going to be used in a rescue mode, you will want to try and place the apparatus at a corner. Placing the aerial turntable at corner of the building will give you the flexibility to operate the ladder on two sides of the building. Keep in mind that the any rescues will be perform much safer and easier with the tip of the ladder at the windowsill.

Access To Upper Floors

When used for access to the upper floors of a structure, we will most likely follow the same guidelines as mentioned under rescue, by positioning the unit at a corner. In doing so, we will have access to two sides of the structure while providing the versatility to conduct truck company



Photo by Peter Matthews/Firehouse.com

operations or fire attack on upper floors. Should the need arise, this position also gives firefighters another means of egress should fire conditions change.

Master Stream Operations

When the incident commander realizes that the fire has gotten the better advantage and conditions for a safe interior operation no longer exists, a defensive operation will need to commence. This defensive mode of operations may require the use of elevated master streams. Key points to consider when changing operations are:

- Never operate a master stream when there are still firefighters in the structure, unless they have been relocated to a remote area that will provide them safety
- When operating in the defensive mode, the stream should be positioned so it hits the seat of the fire. Flowing water into the ventilation hole in the roof is an ineffective practice.
- An offensive operation with a master stream device works best when the appliance is placed in a window at such an angle that the water stream is deflected off the ceiling above the fire.

When possible, avoid parking the apparatus on uneven ground. Use cribbing to support the uneven side when necessary. Keep the aerial within the manufacturers recommendations and never operate or position the ladder beyond the normal limitations.

Keep in mind that aerial ladders are no different than ground ladders when it comes to overhead obstructions - they must be positioned away from electrical wires!

-Prepared by Russell Merrick/Firehouse.com

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