

ORANGE PEEL

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THE OUTSIDE TEAM- PRIVATE DWELLING FIRES

For the purpose of this article I will discuss the functions of the Outside Team on a four-person truck company. The Truck Company can be split into two teams of two: The Inside and Outside Team.

The Outside Team members should include the Engineer (Driver, A/O) and the Saw Firefighter. **(Photo 1)** The Saw Firefighter should be the most experienced of the two firefighters on the company. Most Truck Companies have standing orders to cut, unless instructed otherwise by the Company Officer. However, on those borderline fires the Outside Team must make the decision to cut or not to cut. This is where the experience of the senior Firefighter pays off. Based on previous experience in similar situations an educated decision can be made. Do not cut just to cut. Cut for a reason. We still have an obligation to reduce unnecessary propriety damage.

Each team member has a specific list of responsibilities or duties to complete and certain equipment to carry with them. Discipline must be maintained to ensure that specific jobs or tasks get completed. You have been assigned a small list of tasks to complete, and the rest of the company is counting on you to complete your task. **DO NOT FREELANCE!**

Before the fire call comes in, you need to make sure your assigned tools and equipment are in good working condition.



Photo 1: The Outside Team members consist of the Engineer and Saw Firefighter.

The roof of a well-involved structure that requires top side ventilation is no place to find that your saw is out of fuel or not working properly. That should have been discovered at the station during your morning checks. The recommended tools and equipment to be carried by each team member for top side ventilation are: (turn outs & SCBA are a given).

Engineer (Driver, A/O)

Radio (on proper Tach channel)
Flashlight
Axe-pick head
Proper Ground Ladder selection

Saw FF

Radio (on proper Tach channel)
Flashlight
Axe-pick head
Chain Saw or Circular saw
6' hook

The responsibilities of the Outside Team include:

1. Ventilation (Vertical or Horizontal)
2. Ground ladder placement
3. Proper placement of blowers
4. Check for exterior extension of the fire
5. Utilities
6. Generators & Lights
7. Salvage covers

On arrival at the fire building, and after your size up, the Outside Team should proceed to the most appropriate portion of the structure to make access to the roof for ventilation. Their number one priority is the removal of heat and gases for interior operations. They should take the easiest path to the roof. This may be the driveway, or side yard. Ladder selection and placement is crucial.

A good read of the building and roof access by the A/O on arrival is critical for a rapid and successful roof operation. While the Saw Firefighter is getting his tools ready, the A/O must proceed to the ladder compartment, and choose the right ladder.

This selection process will be based on some of the facts he gathered as he set the air brake: Height of the structure; access to the eve side of the roof; visibility; fire location; set backs; overhead obstructions; overhangs; utility drop from power pole; doors and windows; attack line access points.

Once the A/O selects the right ladder for the job, he and the Saw FF ladder the building and prepare for top side ventilation. It is good practice to start and warm up the saw next to the truck. That way should there be any failure of the saw it will be easier to grab the back-up saw. Prior to going aloft, it is recommend climbing the ladder with the saw slung on your shoulder with a strap and the saw running with the brake set.

While this is a controversial operation with some, my experience has found that: One, it is easier to start the saw on the ground then it is on the roof; two, if the saw does not start, it is easier to go back to the truck to get the backup saw when you are on the ground instead up on the roof.

Who goes up first? The A/O, with the hook, should go up first to sound and recon the roof. The Saw FF will follow. Once they find the proper location to ventilate, the hole will be cut by the saw FF, and the ceiling punched by the A/O. At this point communications will be poor at best. Smoke and noise are two major elements that can have a sever impact on saw operations. A sudden increase in smoke or a change in fire conditions can reduce the Outside Teams ability to communicate. Add these conditions to the high noise level created by a running saw and it becomes evident that a communication system must be used between the A/O and the Saw FF. The Saw FF's only focus is the tip of the saw. The A/O must see the big picture. It is up to the A/O to communicate to the Saw FF what is going on. The best way to communicate in this situation is the "Tap" method. ¹

Simply, the tap method is a series of forceful taps by the A/O on the back of Saw FF to let him know what is going on. The tap method is easy as 1-2-3.

- 1 -Tap: Stop cutting and look at A/O for information
- 2 Taps: Start your cut
- 3 Taps: Shut down saw

After the A/O has recon the roof and selected the area that is the most appropriate, it is time to make your cut. Remember your goal is to make a heat hole as rapidly and safely as possible. How big should the hole be? The text book answer is 4' x 4'. The correct answer is a large as necessary for the rapid removal of the heat and gases. The bigger the fire, the bigger the hole needs to be. What type of hole should you cut? Text book answer- the single louver. Practical answer- is the multi-roll louver. Remember the vent hole is about speed and square footage. This is a better cut, because it allows the Outside Team to rapidly and easily expand the hole with fewer cuts.

After the cut is made by the Saw FF, the A/O will louver the cuts, and punches the ceiling below. Punching the ceiling is just as important as cutting the vent hole. Time and time again I have seen the picture perfect vent hole only to go inside and see a hole punched in the sheet rock about eight or ten inches in circumference. It is ridiculous to think that you are going to get any relief in the fire room with a hole this size. Heat and smoke will travel the path of least resistance, so make sure the hole you punched is at least the same size hole you just cut on the roof.

Keep the saw running until you are ready and satisfied that the hole is big enough. If after your initial cut and louver, you feel the need to expand the hole because of the amount of heat or smoke, then simply cut and roll two more rafters.

Prior to leaving the roof, make sure you radio the IC the results of the vent job and any conditions you encounter. **(Photo 2)** For example: light smoke, no heat. Fire through the hole; Pressurized heat and smoke thru the hole, etc. Now that the hole is cut, and you are getting good lift from below, get off the roof. Don't stand up there and admire your work. If you are working on light weight construction, the longer you are up there, the higher the chances are that there will be some type of failure.

Now both the A/O and Saw FF will climb down, return to the truck, and perform some of the other tasks that need to be completed. These tasks include in no particular order: setting up the fan, throwing salvage covers, securing utilities, or stringing lights.

If on arrival the Outside Team reads the building and decides that top side ventilation is not required, then the preferred method of venting the building will horizontal. This will include setting up the fan and pressurizing the building.



Photo 2: The Outside Team operating on the roof. Report conditions from the vent hole to the IC

Timing is crucial when setting up the fan. The Outside Team must time the setting up of the fan with the Inside Team's opening of the rear to create the channel to move the heat and smoke. If the fan is set up too soon, all of that heat and smoke will be pushed to the uninvolved areas of the structure. Secondly, if there is no avenue for the smoke to travel, the air movement from the fan will disrupt the thermal layer and may cause an unwanted inversion of the heat.

A well trained and well motivated Outside Team should be in position to perform top side ventilation in less than two minutes. It is critical that the Outside team take no longer than this. Any delay or failure to perform to the expected level will have a dramatic effect on the Engine Company that is pushing in to locate and extinguish the fire. The delay will affect the Inside Team that is making the rear and searching behind the fire. Oh yea, what about those victims who are counting on you to reduce the heat and smoke in a timely manner, so that their chances of survival can be extended until you find them.

1 The Truck Company-Saw Operations-The Tap Method
By Michale Ciampo, FDNY