

ORANGE PEEL

April 19, 2004

BY: ERIC HANKINS

Yuba City Fire

Engine 3

THE UNDERSTAFFED COMPANY

As we all know staffing is a problem for almost every department in every town of every county of every state. So how do we get the job done? Most of us follow the old United States Marine Corps motto “Adapt, Improve, and Overcome” and do the best we can.

Now I do not claim to have been on hundreds of fires, nor do I have anywhere near all of the answers. However in my relatively short career I have worked for more than one department running one or two man engine companies (couples) that have had to “Adapt, Improve, and Overcome”.

Let’s look at our tactical priorities: RECEO. Rescue, Exposures, Confinement, Extinguishment, Overhaul, with a little Salvage and Ventilation thrown in for good measure. And I am sure that almost every department’s mission statement has the phrase “... to protect life, property and environment...” in it somewhere. So, what is the best way to comply with the mission statement and our tactical priorities? Simply put, PUT THE FIRE OUT! The best way to protect victims, reduce extension and protect exposures is the put the darn fire out.

Unfortunately, I have never had the privilege of working for a department with a staffed truck company. That means the engine guys (or “speed bumps” as my east coast truck brothers like to refer to us) have to do a little bit of everything. If this is the case for your department I have two suggestions. First, utilize horizontal ventilation to its fullest potential. Second, switch out the fog nozzle on your pre-connect with a smoothbore tip. Combine the two tactics with a quick aggressive interior attack and you should have a successful fire.

Horizontal ventilation is an under used tactic in my opinion. Although it is not quite as effective as vertical ventilation, it still does a great job of lifting the heat and smoke off of any potential victims, not to mention making it much more tenable and easier for the interior crew(s) to see and operate. It is also much quicker for a firefighter to pop a couple of windows than it is for two or three firefighters to ladder the roof and cut a hole. With as much truss construction as we have here on the west coast, does the benefit of vertical ventilation outweigh the risk of a brother going through the roof on a one-story residential? Now, obviously there are some things to think about before taking the windows. You have to pay attention to things like Wind, Fire Location, Possible Victim Location, etc.

You're not going to take out a window on the windward side of the building if the wind is going to intensify and push the fire throughout the rest of the building. Take the leeward windows or the side windows that will allow the wind to draft the heat and smoke out. It is possible the fire will intensify once you pop the windows, but if coordinated with an interior attack the intensity and spread should be held in check.

While we're on the topic of taking windows, let's talk about HOW we should take the window. Obviously we want to be upwind and off to the side, but if we are destroying this window, shouldn't we open it up as much as possible? Taking the all of the glass helps with ventilation, but what about the sash in the center of the window? That sash is the perfect height for snagging the SCBA bottle of a firefighter trying to bail out quickly. If you have the time (make the time), take the sash, curtains, or mini-blinds. Removing all of these things will allow more heat and smoke to escape AND now you've just created another means of egress. Besides as Lt. Pressler said: "you get to break stuff".

The benefits of a smoothbore are also greatly noticed on the understaffed fire ground. Having the ability to handle a handline flowing 150-200 gpm by yourself is very helpful. Having a fog nozzle with that flow would require a minimum of two people to handle the same handline. This ease in handling allows others to do critical tasks such as search and victim removal. A properly applied solid stream also disrupts the thermal balance much less than a fog nozzle. Since a search with minimal staffing takes awhile, the less disruption the better.

Here are a few quick numbers on smoothbore flows and pressures.

Tip Size	Nozzle Pressure	GPM
7/8"	50	150
15/16"	50	185
1"	50	210

The standard nozzle pressure for fog nozzles has been 100 psi. This added nozzle pressure and reaction force makes it much more difficult to maneuver throughout a structure with minimal staffing.

Now I am not trying to spark the always-heated smoothbore vs. fog nozzle debate, but I am convinced that the smoothbore nozzle has much more value on the fire ground than people give it credit. I highly recommend that you train with a smoothbore nozzle at your next training burn (if you still have them). Give it a fair shake. Put it to the test, and I bet you will see the benefits for yourself.

If you are part of a grossly understaffed engine company or on a four-piece company where the second due is 5-10 minutes away, I hope this refresher on some basic tactics will help. Maybe the fires will go out quicker and with less damage in this poorly staffed era.

Take care and be safe,
Everyone Goes Home....