



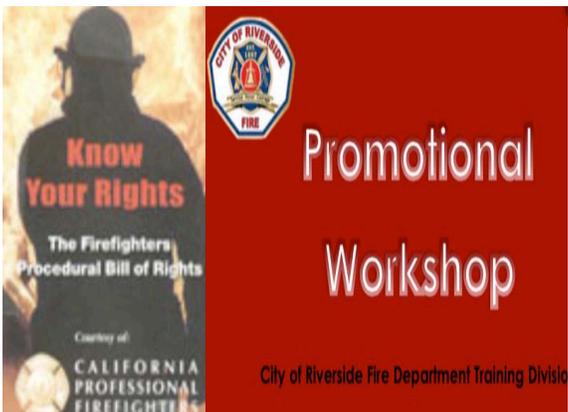
# RFD Training Newsletter

June 2015



## June Highlights

- \*Driver's Training MCD – FL & Nozzles
- \*Engineers Promotional Exam
- \*Truck Skills Review Day – Instructional  
Truck Evolutions by the Training Division
- \*Swift Water Team Training at Lake Perris
- \*Firefighter Bill of Rights Class at EOC
- \*New Hire Mini-Academy (2 Weeks)
- \*Captains Written Exam



Instructors: Captain Tim Strack, and Attorney Howard Liberman

This is a one-day course offered on the following days:

Date: June 9, 2015 Time: 1000-1200

Date: June 19, 2015 Time: 0830-1030

Date: June 26, 2015 Time: 0830-1030

# The Pumpers Local

## Search & Salvage During Vehicle Fires



\*Rescue \*Exposures \*Confinement \*Extinguishment \*Overhaul \*Salvage \*Ventilation

Rescue: It is our legal obligation to conduct a primary & secondary search on every fire that we respond to. This includes every structure, vehicle, outbuilding, etc. Primary Rescue can often be overlooked when responding to vehicle fires. Every compartment including the passenger space and trunk must be checked for the possibility of a human life. This shall be completed during your primary & secondary searches.

Salvage: Hundreds if not thousands of dollars of merchandise and equipment can be found in the average vehicle. This includes linear devices, GPS systems, music devices, clothes, jewelry, personal belongings, college books, pictures, computers, etc. The best customer service we can provide outside of saving a human life is to salvage and save personal property. This can often be overlooked when responding to vehicle fires. Captain John Peurifoy is currently developing disposable **Personal Belongings Bags** to be carried on each unit to assist with salvage operations, and transporting personal belongings with the patient during emergencies.



6. **Strip-Mall**

- a. **Description:** Row of retail stores or service facilities
  - i. May be commonly seen as a single-story or two-story strip mall.
- b. **Report on Conditions:** "Riverside Engine 14 is on scene of a two story commercial strip mall with nothing showing..."



7. **Long Driveways**

- a. **Description:** Structure may be set back a long distance from the roadway causing difficulty establishing an equipment cache and attack lines at the structure.
- b. **Report on Conditions:** "Riverside Engine 9 is on scene of a single story, single family residence, set back approximately 400' from the roadway. We have a large column of smoke showing from the Alpha Side of the structure..."



## 8. Converted Single Family Residence

- a. **Description:** Single family residence that has been converted to office space, apartments, business, etc.
- b. **Report on Conditions:** "Riverside Engine 12 is on scene of a 2 story Victorian style, single family residence that has been converted to multiple apartment units. We have nothing showing..."



## 9. Residential Over Commercial

- a. **Description:** Sometimes referred to as a "Tax Payer," this building consists of some sort of commercial space located on the first floor and residential living space located on upper floors.
- b. **Report on Conditions:** "Riverside Engine 11 is on scene of a 3 story, multi-family, residential over commercial occupancy, with smoke and fire showing from the second floor..."



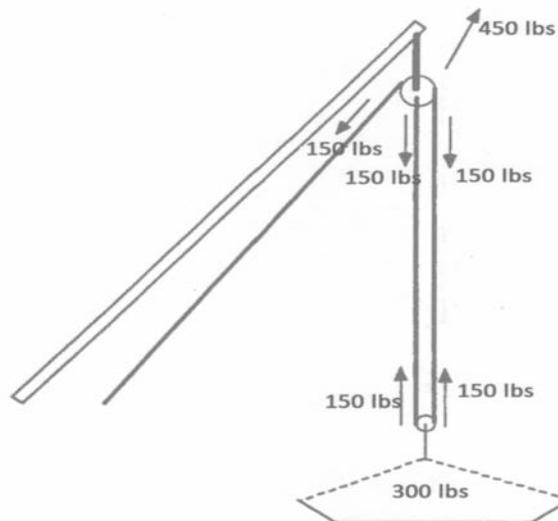
# Working on the Truck

## [High Point Explanation of Weight Calculations](#)

By: Brandon Mollicone

Why is 300lbs the maximum weight of a patient when using the high point if the ladder has a rating of at 500lbs at the tip?

Since we are using a 2:1 mechanical advantage system, our hauling team is going to be pulling half the actual weight of the patient and the equipment. The aerial ladder is going to take more weight to make it easier for us to pull less weight. If we have a 300 lbs. patient in the stokes basket, the lower pulley at the stokes basket is going to evenly split the weight between the two ropes. That means the 300 lbs is split into 150lbs on each one of the ropes going up. Since the tension in the rope is the same throughout the system, when the rope passes over the upper pulley by the ladder, the weight is still 150lbs on the rope. The upper pulley not only has the 150lbs on each side of the pulley it also has an additional 150lbs anchored into it from the rope coming up from the bottom pulley. All of those add up and give us a net force of 450lbs that is exerted on the tip of the aerial ladder. Since the tip of the ladder is rated at 500lbs that gives us 50lbs left over to use for rope and equipment. That is why we do not want to lift a patient that weighs over 300 lbs.



We also want to distribute the weight as much as possible throughout the ladder so there is less stress on the ladder. We accomplish this by placing a change of direction pulley at the base of the ladder. This allows the weight to be pulled along the length of the aerial ladder as opposed to the weight pulling straight down on the aerial ladder. You can test this theory yourself at any fire station by doing the following.

1. Create a 2:1 mechanical advantage system using the equipment in your RPM bag.
2. Put a small load on the bottom pulley and hold the top pulley in your hand with your arm extended at approximately 75 degrees. Your arm will act as the aerial ladder with the high point attached to it.
3. Have your partner pull the rope straight down and try to keep your arm from being pulled down with the rope. You will find that it is not easy to keep your arm in the same place.
4. Now try it again but instead of having your partner pull straight down on the rope have your partner pull the rope along the length of your arm. You will find that it is easier to hold your arm up when the rope is pulled in line with your arm.
5. The same physics applies to the aerial ladder as it does to our arm. That is why we distribute the load throughout the ladder by placing the change of direction in our high point.

Reference: Aerial Physics by Jim Burrell



□



# Roof Operations for Garage Fires



Vertical Ventilation over a garage can be very dangerous and the risk may outweigh the gain. Many garages are unfinished (no drywall, exposed rafters), and will allow direct flame impingement to the structural members during a working fire. Lightweight trusses have been proven to fail within five minutes under fire. Vertical ventilation over a garage has been proven to limit the fire spread into the structure, but the company officer who is supervising the ventilation operation must complete a size-up to determine the placement of offensive vs. defensive holes.

Offensive Holes – Standard 4x4 hole directly over the fire (garage). Aggressive sounding of the roof is a must by the company officer. The company officer shall be the first member of the crew to the roof at all times.

Defensive Holes – Preventing the extension of fire from the garage into the residence is a priority. A defensive heat hole (strip cut) can be cut over the living quarters between the garage and attached living quarters to check for extension, and extinguish any fire found in the attic with a hose line (fog pattern).

Size Up – A continuous mental evaluation of the incident. Fire conditions, building construction, and risk vs. gain must be determined by each company officer. Every company officer shall practice pre-designated assignments with their crew to establish effective communication and roof operations as a truck company. Safety for the crew is the number one priority. Rescue, exposures, and confining the fire to the garage shall be the goal of every truck company assigned to vertical ventilation.

## Truck Skills Review Days

### Next Drill:

**Basic Chain Saw Ops, Ventilation over Center hallways, and Ladders for RIC.**



# Mentoring & Promotional Section



## Solving Problems in the Fire House

What's the easiest way?

I

Identify the problem. You must identify the problem before you attempt to try and solve the problem. Solve the problem at the lowest level when possible.

F

Fact Find. Complete some fact-finding, and stick to the facts found. Eliminate gossip, and hearsay. Fact-finding will assist you with gathering the correct information to help you solve the problem.

A

Analyze the Problem. Brainstorm some problem solving ideas; phone a friend, contacts others who may have had the same problems. Sit on it for a day or so. Reference Federal, State, Local Laws, City Policy, and Department SOP's.

D

Make a decision. Make a decision based on what is right, what is fair to others, and what is best for the organization as a whole. Who will be affected in the short-run, and who will be affected years from now. Would you be comfortable reading about your decision in the local newspaper?

E

Evaluate your decision. Can you justify your decision? Did your decision solve the problem? Did you make a temporary fix, or a permanent solution? Has the problem been documented, and has preventative measures been put in place to prevent a reoccurrence?

# Mentoring & Promotional Section



Teach your Passion in the Fire Service

Becoming a State Fire Instructor and teach what your passionate about. Make a difference in the fire service and teach the next generation of firefighters. Great incentives, and great second career options.

How to become an Office of State Fire Marshal (OSFM) Instructor by Battalion Chief Bruce Vanderhorst

Ever wonder, how you too could teach classes for the training division for S-Classes or OSFM classes? To become an instructor for S-Classes or OSFM classes requires the following classes:

Old Certification Track / Phase out December 31, 2016 (Related to the 2008 OSFM Procedures Manual):

- Training Instructor 1A (40 hour class)
- Training Instructor 1B (40 hour class)
- Training Instructor 1C (40 hour class)
- Ethical Leadership in the Classroom (8 hour class)
- Regional Instructor Orientation [(RIO) (8 hour class)]

New Certification Track / Phase in July 1, 2015 (Related to the new 2015 Draft OSFM State Procedures Manual):

- Instructor 1 (40 hour class)
- Instructor 2 (40 hour class)
- Ethical Leadership in the Classroom (8 hour class)
- Regional Instructor Orientation [(RIO) (8 hour class)]

Please contact Chief Vanderhorst for additional information.

# EMS



## What are 201 rights?

Section 1797.201 of the Health and Safety Code states: "Upon the request of a city or fire district that contracted for or provided, as of June 1, 1980, pre-hospital emergency medical services, a county shall enter into a written agreement with the city or fire district regarding the provision of pre-hospital emergency medical services for that city or fire district. Until such time that an agreement is reached, pre-hospital emergency medical services shall be continued at not less than the existing level, and **the administration of pre-hospital EMS by cities and fire districts presently providing such services shall be retained by those cities and fire districts**, except the level of pre-hospital EMS may be reduced where the city council, or the governing body of a fire district, pursuant to a public hearing, determines that the reduction is necessary."

A tentative agreement is in place with AMR to extend our current contract for the next three years. Riverside Fire will be seeking city council approval soon.

As you are aware, the EMS service delivery system is constantly changing and we will continue to investigate opportunities and possibilities to provide better service to the citizens of Riverside.



# Specialty Stations



## Heavy Lifting & Stabilization

The ability to lift 10tons and stabilize 20,000lbs is now available on RSQ3. Company officers should always be familiar with the capabilities and resources available within the RFD. Example:

- .Vehicle into a house with victims trapped
- .Traffic Collisions involving heavy equipment, big rigs, buses, etc.



## Paratech HydraFusion Struts

Now carried on RSQ3