

Raleigh Receives New Pierce Engines, Ladder

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The Raleigh Fire Department this week took delivery of four pieces of Pierce fire apparatus: two rescue pumpers, one "regular" pumper, and one rear-mounted aerial platform. They'll be assigned to Squad 14, Squad 15, Engine 19, and Ladder 1, respectively. See [more photos from Lee Wilson](#) (shown below) and a [few from Mike Legeros](#). Read prior postings [about the squads](#) and [showing factory photos](#). Continue reading for additional details.

2014 Pierce Arrow XT rescue pumper, 1500/500/30

- Job #27077-1
- New Squad 14
- Delivered February 17.

2014 Pierce Arrow XT rescue pumper, 1500/500/30

- #27077-2
- New Squad 15
- Delivered February 17.

Photo by Lee Wilson.



2014 Pierce Arrow XT pumper, 1500/500/30

- Job #27076
- New Engine 19
- Delivered February 19.

Photo by Lee Wilson.



2013 Pierce Arrow XT aerial platform, 1500/300/30/102-feet

- Job #27078
- Delivered February 19
- New Ladder 2, after temporary assignment as Ladder 1.
- Station 11 expansion of apparatus bays pending.

Photo by Lee Wilson.



Fleet Changes

- Engine 19 is 2000 Spartan/Quality pumper 1250/500.
 - Moved to reserve fleet.
- Squad 14 and Squad 15 are 2002 American LaFrance Eagle pumpers 1500/500.
 - Moved to Engine 24 and Engine 25.
- Ladder 1 is a 2000 Spartan/Quality 1250/300/75-foot ladder.
 - Moved to reserve fleet.
- Engine 24 and Engine 25 are 1997 Pierce Saber 1250/500 pumpers.
 - Moved to reserve fleet.
- Reserve Engine 123 is a 1990 Pierce Lance.
 - Moved to training as Training 1.
- Training 1 is 1989 Pierce Arrow pumper.
 - Moved to antique fleet.

Other notes:

- Squads expected in service at end of February, with in-service training for crews that's scheduled last week of month.
- Engine and ladder expected in service by April 1.
- With the addition of the 2000 Spartan/Quality aerial ladder to the reserve fleet, the 1995 Simon-Duplex/LTI aerial platform will be retired.
- See more apparatus details in my [Raleigh Fire Department apparatus register](#)..

About The New Trucks

Features:

- Front-halogen spotlights on all trucks.
 - Engines have them on top of cab.
 - Ladder has one facing forward and downward, on bottom of bucket.
- Rear-facing LED scene lights on all trucks.
 - Operate on 12V, do not require generator.
 - Ladder has additional LED scene lights. Greatly reduced need for generator use.
- Back-up cameras on all truck.
 - Monitor on center console for driver.

Notes:

- One change from prior engines, the booster reel and pre-piped deck gun have been removed.
- Each engine has a "trash line" in the front bumper, however.

LaLadder features:

- Ladder includes front-facing camera, to enhance their field of vision.
 - Activated with certain driving events, like braking.
 - Gives a longer, wider view than can be seen from "beneath the bucket."
- Ladder is lower profile.
 - Designed to fit inside Station 1 (and other smaller clearances) as needed.
 - Such as when covering for Ladder 4 out of quarters.
- Ladder includes LED lights along ladder.
 - Colored red to help with night vision and minimize blinding effects of other, brighter colors.
- Ladder includes magnetic outrigger pads.
 - Can improve the time required to deploy the aerial platform.
- Ladder has new seat material that is more resistant to tearing.
 - Seatbelts also have top and bottom retractors, to keep them out of the door when closing.

Squad features include:

- Higher hose bed.
- Metal hose bed cover, with full-length LED track lighting.
- Ladders in a compartment below the hose bed, which runs through the booster tank.
- Coffin compartments on top of body.
- Rear ladder, retractable, to reach top of body.
 - Equipped with safety alarm that alerts driver if the ladders deployed while the vehicle is running or in motion.
- Bumper compartment for hydraulic tool, plus reel.
- External winch, with mounts on all four sides.

Notes:

- The squads have a higher body than than prior (or the new) Pierce engines. Thus the ladder storage below the hose bed, so the trucks will fit inside their stations.

About the squads:

- Squad 14 and Squad 15 are among the busiest engines of the city.
- Trucks were specially designed to carry the extra equipment of these special companies.
- They include hydraulic extrication tools, jacks and special shoring, and even an inflatable boat.
- The squads are also assigned a trailer with rescue boats. The rear camera will aid the driver, when the vehicle is towing a trailer.

Anyone provide insight on the thinking of removing the pre-piped deck gun and booster reel?

KICK - 02/23/14 - 15:52

That's easy! Big fire = big water. With the addition of 500gpm "blitz" monitors the pre-piped 1000gpm deck guns simply aren't needed.

Rescue Ranger - 02/23/14 - 21:26

As for the booster reel, I'm told removing this forces them to use the trash line for vehicle fires instead of a low-flow booster line. I think you could also argue that if you were to consider the frequency in which booster lines are used at RFD, the cost, and space it takes up, it may not be all that justifiable. I think it was a good call, showing specing of a truck based on needs, not just what has been done prior. If not mistaken, other metro areas outside of Wake County are also getting away from booster reels.

Jon - 02/26/14 - 07:44

I agree with the removal of booster lines. However, if you didn't have your sarcasm detector turned on I am not a fan at all of removing the deck gun. In my opinion I think it is a HUGE mistake.

Rescue Ranger - 02/26/14 - 09:59

I don't see the removal of the deck guns a big deal either. Not sure about RFD, but they seem to be rarely used and take too long to setup. Even on the rare occasion they are used, I wonder if they shouldn't be since it actually puts the rig too close to the fire usually.

Bob - 02/27/14 - 07:48

Here's my issue: RFD Car 1 has made it clear he does not want to see an aerial truck set up on any structure less than 3 stories, no entry into building without a water supply, and to perform a transitional attack i.e. "hit it hard from the yard". Okay, fine.

So let's look at the first-due engine:

A: Now REQUIRED to "lay in wet" so lack of water isn't/shouldn't be an issue.

B: If it's a 1 or 2 story no need for ladder truck in front of the house so 1st-due should be in front.

(Personally I disagree with this as I would much rather cut a vent hole off an aerial device than haul tools up a ground ladder to a roof ladder.)

C: Put the smooth-bore tip back on the deck guns. There is no set up time involved with the deck gun. It's like a shotgun; point and pull.

(I understand not every fire will be accessible from the front but with no deck gun this tactic can't be performed at all.) Maybe the deck gun should be called the "blitz monitor"?

The officer can simply knock out the involved room's window while doing a walk-around to allow access for the deck gun. Pretty sure you could call that "hitting it hard from the yard". Keep in mind there's nothing saying the driver can't stretch a speedlay or set the deck gun. In my opinion I think the driver should be doing more like helping stretch lines.

After 2 minutes the driver's job is pretty much over. (Not attacking the drivers in any way. Just making a statement because I know the comments of "But we ride 3 so much we won't be able to do that much work" will come.) My first officer many years ago would always say "we ain't goin' to no cake cutting." so either man up or bow out.

If riding 3: Officer performs scene size-up and opens window using the hook from front bumper which most trucks have now. Nozzleman catches hydrant. Driver positions deck gun, hooks up supply line, charges deck gun until room darkens, turns off deck gun, and stretches speedlay to front door. Officer is done with walk-around and meets nozzleman at front door to complete fire attack.

Rescue Ranger - 02/27/14 - 10:43

@RR, I think in theory you are right, but in reality it just isn't practical. Only because you aren't factoring in the time it will take the driver to dismount the deck gun and get it setup in the yard. By that time, your house fire is near over. And if you're talking about keeping it mounted on the rig, good luck with that one too! The chances of parking at just the right spot so you can shoot it through a window or door at the right angle and be effective is near impossible. Not trying to stir you up, just want to be practical.

Vince - 02/28/14 - 07:56

Got a chance to go down to services today and check out the new Squad while "A"Platoon 15 was down helping get the truck in service.

Very impressed with the truck. Quite a different layout from everything else we have. Really looking forward to getting in that seat.

I think the last part of this discussion can be summed up in one word – training. As a Company Officer I know the abilities of my crew, and I have the confidence in their ability to get the job done. We have become extremely efficient by our proficiency- that is we don't set around and watch days of our lives....we talked, critiqued, beat to death and put hands on our tools to be ready for that time when we need to perform. And, we each know and understand how we are going to operate with 3, 4, someone floated in etc. Regardless of the department, setting (rural or city) and policy... we owe it to the citizens and to ourselves to be prepared and that preparation will only come through training.

Brandon - 02/28/14 - 17:39

@ranger. Ranger that is the first I have ever heard about not setting up on anything less than 3 stories. Also, laying in wet is "preferred" unless a rescue situation. With training comes tools, use different tools for different jobs just be able to justify your actions. Whether you use a blitz attack, transitional attack, direct attack, indirect attack, surround and drown etc. There are times and places to use each or multiple tactics. One other thing I have a slight discrepancy with is blowing out the window without an attack line ready. Very rarely will the engine be positioned to be able to use the deck gun for a room and contents fire. Everything we are seeing now through training, the UL etc. is that the fire grows rapidly when air is introduced. If most of the structure is already going up then the deck gun blitz attack is definitely a tool to possibly use.

gen3fire - 02/28/14 - 21:46

My career as a volunteer and paid. Multiple times used on brush/wood fires. Quick knock down and save your manpower on a 100 degree day. 1 1/2 solid bore on the gun is best off the booster tank for reach until you get a supply then go with 2 inch. Dumpster fires, keep your people safe and fill it up if possible let the trash man worry about it. 3 man crew laying in wet on 1 or more houses on fire can protect exposures with a deck gun and the portable monitor until help gets there. Have never had a collapse come even close to falling on the first engine. I have seen fireman scramble to escape a collapse. Have to practice and not waste your 500 gallons in the city or 1000 gallons as a volunteer. My opinion only.

Rob Mitchell - 03/01/14 - 18:21

In addition, and observably... firefighters "may" be much closer and within the "collapse zone" when operating a portable master stream device (Blitz, Mercury, Apollo, etc.). Training is important.

A.C. Rich - 03/02/14 - 11:21

Yea, I've not heard the "rule" about no aerials on less than 3 stories either. If there were any inkling in that direction it would be a mistake in my estimation. I totally agree that I'd rather use the "interstate highway" that the aerial provides for getting on the roof to vent or affect a rescue. When I rode ladder 3 we trained on comparing the amount of time it took to deploy the 35' extension or the aerial. For us there actually wasn't too much of a difference. But, it was at the Crabtree parking deck and we were parked right at it. Moving the big ground ladder across a yard with obstacles, or anything other than a nice flat lawn would certainly add precious time to deployment vs. pushing the lever to extend the aerial. Even if it's a ranch style house, if I'm acting officer on a ladder and I feel the aerial is the best method to get the job done, guess what's gong to happen. In the army we had a saying: "There's a fine line between 'Hard' and 'Retard'." Climbing a ground ladder to vent a 3 story-high roof when the aerial will work just fine, well.... Why would we want to limit ourselves with respect to the tools at our disposal? Besides, Having the outriggers set up early also speeds up the aerial deployment if the master stream becomes a need. You can vent from ON the aerial, Get up and down fast, etc. It's a powerful and effective tool.

Bob C - 03/02/14 - 13:32

Using an aerial to get to a roof to vent it, or positioning it to a balcony for ingress/egress is completely different than setting it up high in the sky to flow water. How many pictures reflect RFD aerials set up for offense versus defense? I think the point from RFD C1 is don't set them up to flow water on a two/three story house. If the aerial was to the roof to vent, different story completely.

Truck Guy - 03/02/14 - 13:46

Why are we taking tools out of the tool box that does not get used often? Also, If we are defensive on a two story house with fire through the roof, then why not use the biggest tool we have, an elevated master stream. Furthermore, a deck gun is a great tool to use. Every situation is different. There will be times when you will not be able to use a tool, but it does not constitute taking it out of the tool box and throw it away. A fire pump is not used often, but when you need it, you need it!

Fire bug - 03/05/14 - 23:17

@Fire bug, okay then you write the check to put the booster and deck gun back on the rig and I'm sure they'd put it back in the tool box for you.

Bob - 03/06/14 - 06:46

Bob, if they don't spend the money on a deck gun or booster reel, then they will spend it on something silly. Also, last time I checked, my bank account did not have \$51,000,000 in it. I will check my bank account later today. Thanks for your valuable input.

Fire bug - 03/06/14 - 09:59

@ Bob – There are A LOT of special options added to Raleigh's rigs that do nothing more than make it pretty so let's not put blame on a cost issue.

@ Chief Mitchell and Chief Rich – Both of you are spot on! How much fire could E-16 have contained if they used their deck gun with smooth-bore tip from their location at the Manor Valley ct. fire? I saw several 500gpm "blitz" monitors on the ground for a defensive attack. Why? In my opinion because the "higher ups" wants to see the Mercury monitors put in use. Again, in my opinion, I believe there was enough time to dismount the 1000gpm Apollo monitor for use of a defensive attack.

@ Capt. KC – I understand about a fire rapidly growing with the introduction of additional supply air. Problem is in order for a fire to grow it also requires heat which will be removed by the blitz attack with the deck gun. By removing the heat you limit fire spread. This goes back to the basics of the fire tetrahedron. The videos prove that.

@ Vince – I wasn't implying to dismount the deck gun. At that point it becomes an Apollo monitor. A deck is pre-piped ready-to-go so like I said it's like a shotgun; point and pull. And like Capt. Hopkins pointed out, it all goes back to training. There is nothing stopping a well-trained Lieutenant/Engineer (Big difference between an Engineer and a lever-puller.) from slowing down as they approach the scene to perform a size-up to determine the best apparatus placement. The driver should be doing that anyway as sometimes the best location for the engine is stopping PRIOR to the house not past it (I know "the book" says to pull past the house but this job does require use of a brain. I know, I know, I'm asking a lot.).

Example: The driver will train on spotting a hydrant which means parking the truck the proper distance from the hydrant to prevent kinks in the supply line. This training will teach the driver the relationship of the intake's location on the truck as viewed from the driver's seat. Training on the deck gun is no different. A well-trained driver SHOULD be able to park the truck in such a manner that the deck gun will align with the window to the involved room. Can this tactic be performed on every situation? No, of course not. Neither can "laying in wet". But without the deck gun it can't be performed at all! How about this? Try it out and get back to me.

Rescue Ranger - 03/06/14 - 10:40

Okay, so how does it work? I mean, purchasing fire trucks. Does RFD just write Pierce a check out of that \$51 million or what? Just curious about the budget and purchasing end of it.

Newbie ff - 03/08/14 - 11:23

I can tell you how RFD works, but Wake County may be a bit different. Note that budgeting and purchasing are two separate processes.

The budgeting of capital equipment, like fire apparatus, is budgeted separate from the base budget...which is the roughly \$51 million referenced in an earlier comment and is composed of what it takes to run the department, both personnel and operating costs. About 89% of RFD's total budget is set aside for personnel costs, such as payroll and benefits. This portion of the \$51 million cannot be used to purchase apparatus, or anything else and has to be used only for personnel costs. Only the remaining funds can be used for the "stuff" RFD needs to run the department each year.

RFD typically requests new fire apparatus each year, some years are funded and some are not. It just depends on the financial status of the City and where the purchase of fire apparatus falls in the list of priorities for that particular year. For those years in which it is funded, the cost of the apparatus is spread over a 5 year period to lessen the budget impact of the purchase. This is accomplished by utilizing the City's equipment fund. This works like a car payment...the cost of the apparatus is paid from the equipment fund, and then RFD repays that amount taken from the equipment fund over that 5 year period. So if a Ladder is purchased for \$1 million, RFD's budget is appropriated an additional \$200k over the next 5 years.

As for the actual purchasing of the apparatus, this doesn't automatically go to Pierce. Each time RFD decides to purchase apparatus, it must be bid out. The bids are advertised online and vendors who meet the qualifications and specifications set forth in the bid submit the price they can build the apparatus for. Whoever is the lowest, wins the bid. Recently, Pierce has been the winner of the bid, hence the growing Pierce fleet at RFD.

And yes, Pierce does receive a check for the total amount due for that apparatus. However they do not receive payment until the apparatus are received. They are, however, paid a pre-payment earlier in the process for the chassis when they are manufacturing custom apparatus. For apparatus that utilize a pre-manufactured chassis, they do not receive a pre-payment.

AP - 03/09/14 - 00:37

Looking at the pics of those squad engines, I must say, those are some bad a\$@ trucks! They are like engines on steroids, not quite as cool as L4 but would be an awesome ride as far as engines go. Once again, RFD setting the standard for the county. Kudos and enjoy the new rigs!

Neighbor FF - 03/12/14 - 07:27

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