OUR SECOND DAY OF INFAMY! As time passes by, less and less is known about the people who made the supreme sacrifice on September 11th, and what was done by those who responded to Manhattan Box 8087. In this issue of the Division 7 Training and Safety Newsletter, I will focus on one Firefighter who was killed that day.

Firefighter Andy Fredericks was appointed on August 19, 1990. He was assigned to Engine Co. 48 upon graduation from Proby School, and his brief, but legendary career began. Andy’s first day in Engine 48 was memorable. Fr. John Grasso took the Proby under his wing and started showing him around Engine 48’s apparatus. John opened every compartment and showed him every tool that was on the pumper. John then asked what Andy did before he joined the FDNY. Andy replied that he was a Firefighter in Alexandria, Virginia. John asked him: “Why didn’t you tell me that before I took you around the apparatus?” Andy replied: “I didn’t want you to know. I wanted to hear everything you just told me.” Andy was a sponge for more knowledge.
Andy was highly educated. He had a BA in Political Science. He had a BS in Public Safety/Fire Science. And, he had a MS degree in Fire Protection Management. Andy was a certified Fire Instructor. He served as an Adjunct Instructor for John Jay College and the NYS Academy of Fire Science. He was published many times in Fire Engineering Magazine. Andy served as a member of the Editorial Advisory Board for Fire Engineering Magazine. Andy created training videos that were sold through Fire Engineering. And, Andy was a driving force in re-writing the FDNY Firefighting Procedures for Engine Company Operations. Andy was a “nationally known” expert in Engine Company Operations.

Andy was all about being a Firefighter in the Engine Company. It was his passion. One of the Firefighters who made a lasting impression on him was Fr. John Askin of Engine 48. Andy would learn and put into practice the finer points of being an excellent Firefighter. He would have long discussions late into the evening in the firehouse kitchen with his Captain, John Salka, Fr. John Askin, Fr. John Grasso, Fr. Will Tracy, Fr. Dominic Libonati, Fr. Steve Mickiewicz. There were many others, from Firefighters to Deputy Chiefs, who would watch and learn in the kitchen as Andy would hold court. Andy not only knew his facts, but he had a methodical way of explaining his position. And, he was usually right. Andy viewed every moment as a teaching moment. He would never let an opportunity to pass to teach younger firefighters the skills of being a good engine company firefighter.

Andy was very interested in the history of the FDNY. He would research old WNYFs and other fire department documents to see how fires were fought in days gone by. He was an advocate of employing new techniques and tools that would improve our effectiveness. If someone came up with an idea that he found interesting, he would encourage that person to write it up in an article so that person would get credit for their idea.
I first met Andy as a Covering Captain working in Engine 48. It was immediately apparent how impressive this guy was. He carried himself as an understated yet very confident Firefighter. He was professional in everything he did. One story that was told to me was that when he would be relieved by a detailed Chauffeur at the change of tours, he would stay with this detailed Chauffeur until he went over the entire apparatus of Engine 48 before he left.

Andy was one of the first Firefighters to volunteer to staff the newly created Squad Companies. He went to Squad 18 with one of his Lieutenants from Engine Co. 48, Billy McGinn and fellow Firefighter Steve Mickiewicz. Andy viewed it as an opportunity to expand his knowledge. Andy was a beloved member of Engine Co. 48. It was painful for the Firefighters on Webster Avenue to see him transfer out.
On September 11th, Andy was on-duty with Squad 18. As I was climbing the stairs in the North Tower of the World Trade Center (WTC), I ran into Andy on the 27th floor. He was not with his unit. I asked him how he was doing. He said: “Not so good. I just came off of Medical Leave and my knee is killing me. But, I had a Roster Overtime scheduled for this tour so I came off of Medical Leave.” It was at that time that we felt and experienced the collapse of the South Tower of the WTC. That was our catalyst to start our evacuation of the North Tower. Also with us was Captain Billy Burke of Engine 21. We started our evacuation. The Firefighters of Ladder 6 decided to stop and rescue a woman in distress on the 20th floor. Andy was still behind us. When the collapse of the North Tower occurred, I assumed that Andy and Capt. Burke were still with us. My first disappointment of the day was realizing that these two great men were no longer with our group. I held out hope for days that these men may have survived.

As a young Firefighter, you will pick and choose who you would most like to emulate in your time in the FDNY. Andy Fredericks would be a great choice as someone to emulate. He was smart, articulate, strong, highly respected, and friendly. He would do anything to help his fellow firefighters. He had an ambition to not only be the absolute best Firefighter he could be, but to inform and educate every Firefighter that would listen to him. Andy was special.

Andy died heroically and with great honor in the North Tower of the WTC on September 11th, 2001. He was promoted to Lieutenant posthumously. Andy left behind a wife, a daughter, and a son. We miss you Andy. Never Forget!

Deputy Chief Jay Jonas, Division 7
Thanks to the following people who contributed to this essay: B.C. John Salka (Ret.), Fr. Brian Browne, Fr. Chris Roberto, Fr. Frank Palumbo (Ret.), Fr. Dominic Libonati (Ret.), Lt. John Grasso (Ret.), Chief Dave McGrail (Denver Fire Department), Fr. Mark Wesseldine (Ret.), D.C. Vincent Dunn (Ret.)

QUOTES FROM ANDY FREDERICKS:

“The direct method of attack involves applying water directly on the burning fuel to cool it below its ignition temperature and suppress production of volatile vapors.”

“In the case of larger fires - those approaching flashover and those already in the fully developed phase - it may not be possible or safe to immediately apply a stream of water directly on the burning fuel. Due to burning gases rolling across the ceiling, high heat conditions, and/or partitions and obstructions interfering with the direct application of water, the stream first must be deflected off the ceiling and upper walls until the nozzle team can get close enough to permit direct cooling of the fuel.”

“Some members of the fire service confuse the deflection of a straight stream or solid stream off the ceiling and walls with “indirect” extinguishment. The purpose of directing the stream upward at a 60 or 70 degree angle is not to cause rapid cooling of the effluent fire gases (which will create large amounts of steam, as in the indirect and combination methods of attack) but to allow droplets of water from the stream to rebound off the ceiling and walls, penetrate thermal currents produced by the fire, and start cooling the burning fuel – all while the nozzle team operates from a safe distance.”

“Solid stream nozzles require lower operating pressures than standard fog nozzles, producing significantly less nozzle reaction and making hose lines less stiff and
easier to move around corners and newel posts. In general, at equal flows, a 100 psi combination nozzle in straight-stream position will generate one-third more nozzle reaction force than a solid-stream operated at 50 psi.”

“Old Timers in the FDNY state that even lower tip pressures may be advantageous – especially when using 2 ½ inch hose. Supplying only 30 to 35 psi to a 1 1/8 – inch tip attached to 2 ½ inch hose produces a fire stream with considerable reach, adequate volume (about 210 to 230 gpm), and reduced nozzle reaction.”

“The proper flushing technique (of hydrants) involves opening the hydrant several turns, waiting momentarily, and then closing the hydrant until the discharging stream of water fills approximately one-half of the outlet opening.”

Andy with FF. Bobby Nubert, FF Billy Martens in 48 Engine
“When should a 2 ½ inch handline be used instead of smaller hose? One way to remember those situations that call for 2 ½ inch line is to use the mnemonic device “ADULTS,” created by an FDNY firefighter while studying for the Lieutenant promotional exam:

A Advanced fire on arrival

D Defensive operations

U Unable to determine extent (size) of fire area

L Large, uncompartmented areas

T Tons of water

S Standpipe system operations “

“Any time you encounter an advanced fire condition on arrival, consider deployment of a 2 ½ inch handline. An advanced fire condition often precludes immediate entry into the fire building. Even private dwellings may warrant an attack with 2 ½ inch hose, especially when a large volume of fire involves the front porch or first floor, or if combustible siding is burning and
threatening nearby exposures. While the use of master stream devices at fires in occupied residential buildings is not recommended, the same cannot be said about 2 ½ inch hose. After all, it is a handline and can be advanced into the building to complete extinguishment once the fire has been given a quick dash from the outside.”

“Controlling and operating a 2 ½ inch hand line, while far from easy, can be facilitated by following these basic rules:

- The Nozzleman must keep sufficient hose out in front to permit unhindered nozzle movement.
- The Back-up man should lean into the nozzleman to provide physical support in resisting the nozzle reaction.
- The Back-up man must keep the line low behind the nozzleman and as straight as possible.
- The Back-up man should “pin” the hose to the ground using his hands or knees, this easing the task or resisting the reaction force without adversely affecting nozzle movement.
- When moving the line, shut down or gate down the nozzle to reduce the reaction-burden. Make sure the fire area ahead of the line has been cooled sufficiently before advancing.
- Attempting to stand while operating a 2 ½ inch line is difficult at best. If a doorway, wall, or tree is nearby, lean against it and use it to help resist the nozzle reaction.
- It may be necessary to assign additional personnel to “lighten up” on the line and keep it moving. This is especially important during standpipe operations or when the line must make several bends and turns.”
“Although tactical considerations governing the selection and placement of handlines based on needed fire flow and fire control objectives will not be addressed here, three indisputable firefighting truths concerning handlines bear mentioning. First, it should be the rare situation indeed that a second handline is stretched before the first line has been stretched, charged, and started its advance on the seat of the fire. The fire control efforts of the first handline save more lives at structure fires than any other firefighting action. Placing the first handline in service must be the primary objective of first alarm engine companies.”

“As a general rule, do not open the nozzle on smoke. The nozzleman should wait until he encounters fire and direct the stream toward the ceiling while whipping the nozzle in a clockwise or side-to-side motion.”

“I stated above that in most cases you should not open the nozzle on smoke. Recently, many veteran firefighters and officers have indicated that it may be necessary to rethink this approach. The fire environment has grown more dangerous and less predictable from the use of energy-efficient windows (not to be confused with simple, double-glazed windows), membrane roofs, and fuel materials that produce increasingly large quantities of dark flammable smoke. High heat conditions that force the nozzle team down to floor level with no visible fire may necessitate that the nozzle be opened on smoke, at least momentarily, to avoid burns from imminent rollover and flashover.”
“It is also very important for the nozzleman to sweep the floor periodically with the stream as the team advances. This pushes aside and/or cools burning embers, scalding water, and molten plastics. Even while members are wearing bunker pants, knee burns are still possible. The protective layers of the bunker gear are stretched tight over the joint when kneeling, thus eliminating much of their insulating qualities. Sweeping the floor also “sounds” the floor to provide indication that a hole or other opening lies ahead. Still one more important reason for sweeping the floor is to push aside glass shards, nails, and hypodermic needles. Bunker pants will do little to prevent penetration by a needle positioned at just the right angle. Use extreme caution when advancing over carpeting, as “sharps” may be stuck in the pile at crazy angles and may not dislodge when you sweep the floor. It may be safest to “duck walk.”

“The first handline is, without question, the most important lifesaving tool at a structure fire. Controlling fire spread and stopping smoke production save an untold number of lives every year. While smoke has its greatest impact on civilians, it is the fire itself that most threatens firefighter safety. Stopping the generation of smoke and toxic gases—especially asphyxiating carbon monoxide—is the best means of safeguarding civilian lives. Firefighters, equipped with SCBA and able to operate in smoke, are more concerned with rollover and flashover. Controlling fire growth to reduce the potential for burn injuries is how the first line best protects firefighters.”
“The garbage man doesn’t get excited when he turns the corner and sees trash, because he’s expecting it. Likewise, you should be expecting fire on every run.”

“Take the time to make the time.”