

Innovative New Foam Equipment

By Battalion Chief Steven San Filippo

Changes over the years in the fire service have been slow. This is especially the case as it pertains to foam equipment and its operations. The FDNY has been moving forward aggressively, introducing a new foam concentrate product, equipment and operations to better apply firefighting foam on flammable liquid fires. Whether it's extinguishing Class "B" flammable liquid or Class "A" fires, these changes were overdue.

The 3rd/2016 issue of *WNYF* introduced the Department to the five new brush fire units. Compressed Air Foam (CAF) debuted with these FDNY units. To recap, CAF provides another resource when confronting a Class "A" (brush fire). When these brush fire apparatus use CAF properly, they can penetrate deeper into the brush and extinguish larger areas of fire. The advantage of using CAF over straight water is that it has the capability to extinguish larger areas of fire using hi-ex foam and limited amounts of water. This enables units to operate for longer periods of time when a water source is limited or unavailable.

The Department recently introduced five new foam tankers. They are quartered in Engines 152 and 167 on Staten Island; Engine 247 in Brooklyn; Engine 260 in Queens; and Engine 96 in the Bronx. These foam tankers have increased foam capabilities when combating flammable liquid fires and are equipped with some specific and unique equipment. This article examines the equipment.

Blitzfire Ground-Operated Appliance

This equipment (Figure 2) can provide an important tactical advantage for an Incident Commander (IC), not only at an incident requiring foam, but also at operations using water or electrical incidents where F-500 may be required. At foam operations, the Blitzfire may be used with the nozzle that accompanies it or various foam nozzles carried by the Department's foam tankers and Satellites.

Note: F-500 is a product currently carried by Haz-Mat 1 in five-gallon containers and also is stored at certain Con Edison facilities City-wide for FDNY use. F-500 is not a foam, but provides another option for the Incident Commander when confronted with live electrical fires, as long as F-500 is used in conjunction with the Blitzfire in the unmanned position.

Description—The Blitzfire has been issued to FDNY's five foam tankers, four Tech Engines and Haz-Mat 1, as well as the six Satellite Units. This portable ground appliance is lightweight, easy to use and can be placed into operation quickly. It comes equipped with a 500-gpm nozzle, which is adjustable to various fog and straight stream positions. The nozzle can be set at one of two positions—low flow (Figure 3) or 100-psi standard pressure (Figure 4). The low flow and standard pressure positions can be adjusted at the tip of the nozzle prior to commencing operations. The low flow position provides a greater volume of water, while the standard flow provides a stream with greater reach.

The Blitzfire issued to the FDNY comes equipped with a unique component. It has the ability to be set manually to oscillate horizontally back and forth, while being used in the manned or unmanned position. When set to oscillate, it can be pre-set in one of the three positions: 20-, 30- or 40-degree horizontal sweeps. The ability to set it in the oscillating and unmanned position becomes particularly important in situations where the need to operate is imperative and placing members in a dangerous area is not an option. Examples of this would be a possible collapse zone, operating on energized electrical equipment and exposure protection. To adjust the sweep, lift and slide to appropriate position (Figure 5).

The Blitzfire also has a built-in safety shutoff, which automatically shuts down the operation if there is any unexpected sudden movement of the equipment or hose-line supplying the equipment. This feature significantly reduces the risk of injury to members. The legs on the appliance unfold and are equipped with three carbide-tipped spikes that provide stability for the appliance and significantly reduce sliding. When the Blitzfire is in use, it always should be secured or tied down to prevent movement.



Figure 1—Foam Tanker.



Figure 2—Blitzfire.



Figure 3.



Figure 4.



Figure 5—20-, 30- and 40-degree horizontal sweep adjustments.

Control Valve (Handle)—The control handle on the Blitzfire can be used as a carrying handle and also controls water flow



About the Author

Battalion Chief Steven San Filippo has served the FDNY since 1978. He is assigned to Haz-Mat Operations as the Foam Manager. He has completed the West Point Counterterrorism, Leadership and FDNY Officers Management Institute (FOMI) programs. He holds a Bachelor's degree in Fire and Emergency Management and a Master's degree in Emergency Management from John Jay College. He was part of the FDNY contingent that responded to New Orleans following Hurricane Katrina. He has written numerous articles on firefighting foam operations for *WNYF*.