

# The Bureau of Training... Beyond Probie School

by Captain Thomas A. Robson



*photo by FF Archie Booker, FDNY Audio-Visual Unit*

Apparatus familiarization training program is taught by the staff of Chauffeur Training School.

**T**he Bureau of Training, headquartered at the Fire Academy on Randall's Island and under the command of the Chief of Training, is responsible for formulating and conducting nearly all formal training programs within the Department. Its numerous training buildings and "smoke house" provide for optimum realistic training in modern firefighting. The Emergency Medical Services Training branch at Fort Totten is charged with providing the Department with competently trained personnel to fulfill its emergency medical care mission.

The Bureau teaches techniques in firefighting gained from over 130 years of experience by the FDNY. It is dedicated to the training of firefighters in fire suppression, fire prevention and the mitigation of other life threatening emergencies. All teachers at the Academy are New York State Certified Fire Instructors - Level 1.

In addition to the extensive training given to the new firefighters, the Bureau also has specialized programs for seasoned firefighters in Back to Basics, Chauffeur Training, Collapse Training, Computer Utilization, Confined Space Rescue, Hazardous Materials Operations, Peace Officer, Radiological Operations and Monitoring, Rope Training, Staying Alive and Vehicle Extractions.

Supervision and management courses are given within the First Line Supervisors Training Program and the Chief's Command Course. Additionally, field units periodically are called to the "Rock," as the Bureau of Training is known, for Tactical Training. Firefighters are trained in Cardiopulmonary Resuscitation and as Certified First Responders-Defibrillation (CFR-D) by the Emergency Medical Services Training Branch of this Bureau.

Besides training its own, the Bureau instructs many of New York State's newly promoted professional fire officers. The Academy also provides its facilities to other City and State agencies for their necessary training. The Academy shares its experience by participating in the Training Resources and Data Exchange (TRADE) program of the United States Fire Administration, Federal Emergency Management Agency (FEMA).

## **Chauffeur Training School**

Chauffeur School trained 546 members of this Department in 1996. The ladder company chauffeur's training program graduated 110 members, 138 graduated as engine company chauffeurs, 114 as tractor trailer

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drivers and four as "Fatal Fire Reduction House" trailer drivers. An Apparatus Familiarization Training Program trained 90 members on aerial ladder apparatus, 48 on tower ladder apparatus and 42 on the Emergency One type pumpers.

The Ladder Company Chauffeur's and Engine Company Chauffeur's courses are two weeks (80 hours) in length. The course is divided between classroom instruction and practical apparatus operation with instructor supervision under controlled conditions. Quizzes are given daily and a final exam must be passed. At the beginning of October of 1996, all members who successfully completed these two courses received a Defensive Driving Certification as an Emergency Vehicle Operator-Fire from the National Safety Council.

In 1996, eight instructors received certifications as Defensive Driving Course Instructors from the National Safety Council. Eight instructors received Emergency Vehicle Operator Course Instructor certifications from the New York State, Department of State, Office of Fire Prevention and Control, and four received Certificates of Completion for the Accident Investigator Course given by the New York City Police Department.

The Engine Company Chauffeur's course has been approved for one semester hour in Emergency Vehicle Operation Course (EVOC) and one semester hour in Fire Service Hydraulics by the New York State Board of Regents, National Program on Noncollegiate Sponsored Instruction (PONSI). The Ladder Company Chauffeur's course has been approved for one semester hour in EVOC.

## Fire Administrative Reporting and Management System Unit

The FARMS Unit trained 1400 members in computers in 1996. Instruction included a Windows overview, setting the Windows environment, Window accessories and multi-tasking, word processing basics including formatting and editing techniques, grammar and spell checking, advanced editing tools, columns and tables, letterhead templates, entering data and printing reports in the FDNY's customized database management programs. This training was available to fire officers and Division and Battalion firefighters.

Presently, the FARMS unit is also assisting in the development of the Fire Reports program. The expected completion time is the Fall of 1997. A teaching plan is already being developed for the new Fire Reports program. Additionally, as of February 1, the Unit has been assisting in the formation of the Fire Prevention program.

The State Regents PONSI program has allowed one semester credit in Office Technology or Office Automation Systems. This credit is concomitant on the completion of all 32 hours of training in the initial phase.

## First Line Supervisors Training Program

The First Line Supervisors Training Program (FLSTP) is a four week (160 hour) management/supervisory course mandated by New York State law. To be eligible the officer must be a member of a paid fire department, who has been promoted on or after April 1, 1985 as the result of a civil service exam.



Illustration by FF Bill Kristoff, FDNY Graphics Unit



photo by FF Archie Booker, FDNY Audio-Visual Unit

First Line Supervisors Training Program instructs newly promoted FDNY Officers as well as officers from other New York State municipalities.

The program includes classes in educational methodology, classes to improve analytic and problem solving skills, personnel management, firefighting strategy and tactics, building construction and collapse, arson awareness and recognition, Haz Mat first responder operations, incident command system use and administrative procedures. This program also has field exercises in SCBA use, extrication, forcible entry and search procedures. The curriculum conforms substantially to National Fire Protection Association (NFPA) standards 1021, 1041 and 1500.

During the calendar year 1996, 153 FDNY Lieutenants and 89 first line officers from other New York State municipalities were trained. In addition, 54 members of the Fire Academy teaching staff were trained in Educational Methodology.

A first line officer completing this program receives certification in Educational Methodology, Fire Behavior and Arson Awareness, Fire Cause and Origin Determination, Haz Mat First Responder Operations, Fire Instructor Level I, and Fire Officer Level I. These certifications are issued by the state Office of Fire Prevention and Control. Additionally, non-New York City officers receive certification in the Fire Reporting System by New York State. Graduates of the program also receive certifications in Building Construction from the National Fire Academy, and FEMA.

The State Regents PONSIP program has approved FLSTP for the following credits: three semester hours in Supervision/Administration; two semester hours in Educational Methodology; two semester hours in Fire Tactics and Strategies; and one semester hour in Haz-

ardous Materials. SUNY Empire State College has approved FLSTP for the following credits: two semester hours in Supervision/Administration; three semester hours in Educational Methodology; two semester hours in Fire Tactics and Strategies; and two semester hours in Fire Behavior: Cause and Origin.

#### **Hazardous Materials Training Unit**

In 1996, the Hazardous Materials Training Unit trained members in Phase 3—Operations Level. This module included training in basic hazard and risk assessment techniques, an understanding of basic hazardous materials terms and a working knowledge of how to select and use personal protective equipment. In addition, training was given in how to perform basic control, containment or confinement operations with stress on safely working within the limitations of the unit's resources and available personal protective equipment. This class was completed with instruction on implementation of basic decontamination procedures and an understanding of the relevant standard operating guidelines as well as termination procedures.

As of December 1996, the operations level training was completed. Currently the unit is involved in the Refresher Training Program. Both programs were designed to be fully compliant with U.S. Department of Labor, Office of Safety and Health Administration (OSHA) Standard 29 CFR Subpart H, Hazardous Materials; 1910.120 Hazardous Waste Operations and Emergency Response.

The state Office of Fire Prevention and Control has

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certified all instructors as Operations Level—Hazardous Materials Instructors. Members completing 16 hours of HazMat instruction are given one semester hour in hazardous materials by the state Board of Regents (PONSI).

In 1996, the HazMat Training Unit instructed 2,546 members. This figure includes 48 Deputy Chiefs, 208 Battalion Chiefs, 143 Captains, 320 Lieutenants, and 1,827 Firefighters.

### Health and Fitness Unit

The Health and Fitness Unit seeks to physically train members of this Department for improved health and the enhanced ability to perform job-related tasks. It educates the Department in nutrition and its effects on health and job performance. It seeks to prevent job-related illnesses and ameliorate the longevity of the Department's members considering firefighting's myriad occupational hazards. Finally, the Health and Fitness Unit endeavors to teach and motivate all members to train themselves in a safe, efficient and effective manner.

The Unit spends 47.25 hours training each probationary firefighter. This program includes both health

and FDNY performance instruction. It consists of a pre- and post-test evaluation, classroom lectures, demonstrations, interactive field instruction and practical training. This Unit trained 615 probationary firefighters in 1996.

The Health & Performance Instructional Training Program serves the training needs of the rest of the Department both uniformed and civilian. This includes personalized training for individuals or small groups on health, safety and field performance. Teaching media includes verbal, video and/or written formats; information is also disseminated "through the bag" or by telephone. The program averages between 400 and 800 participants per month.

The Unit also has specialized programs for those attending Chauffeur School, the First Line Supervisor's Training Program and those firefighters and fire officers being retrained. Additionally, the Unit tests for the Fire Department's coveted Health and Fitness Award and the Ten Mile Run Award. They also organize and direct the John O'Regan Walk/Jog/Run Program for Cardiovascular Enhancement and the FDNY Rowing Competition.

## History of the Bureau

*The evolution of the present Bureau of Training began in 1869, just four years after the New York City Fire Department was founded as a paid force. The Board of Metropolitan Fire Commissioners, headed by General Alexander Shaler established an "Officers School" and wrote a "Manual of Instruction" for the commanding officers of engine and hook and ladder companies.*

*Up to that point, the "Foreman" (Captain) of a given company was responsible for the training of his unit. This practice continues to this day in the form of the company drill, still an important part of a well-rounded training program.*

*General Order #4 of June 7, 1883, created a formal "School of Instruction." Chris Hoell of the St. Louis Fire Department was hired to train members of this department in the recently invented Hoell Life Saving Appliance. This appliance is known today as the scaling ladder. Second Assistant Chief Hugh Bonner was designated "Instructor of the School."*

*The School of Instruction was made up of two classes. The first was called the "Life Saving Corps." It instructed and trained firemen in the use of scaling ladders, ordinary ladders and life lines. A second class covered the practical duties of a fireman in quarters and at fires. It particularly stressed the handling, care and use of all implements, tools, etc., employed in extinguishing fires. The School of Instruction was quartered with Engine Company 47 at 766 Amsterdam Avenue. An old sugar warehouse at West 158th Street and the Hudson River was used as the first drill tower.*

*In 1887, the new headquarters building was dedicated on East 67th Street. The School of Instruction moved to the fifth floor of this building. A rear yard was used as a drill*

*ground and the rear windows were used for scaling ladder practice. General Order #8 of 1888 added a "Company School" to the School of Instruction.*

*General Order #72 of 1911 created the next plateau, the "Fire College." That General Order specified that the college should consist of: an Officers School, a School for Engineers, a Company School and a Probationary Fireman's School. The Fire College Board was headed by Chief of Department Edward Croker and Deputy Chief John Kenlon.*

*When Engine Company 40 vacated their quarters on West 68th Street in 1918, the Fire College moved in, remaining there until 1932 when it moved to the "Packard Building" at Queens Blvd. and Van Dam Street. The Probationary Firemen's School, however, continued to train at 68th Street until 1963. The College, meantime, was moved again in 1948 to Hunters Point Avenue and 35th Street in Long Island City, to a site called the "Shops and College Building." This is the same building that Fleet Maintenance uses today.*

*Department Order No. 113 of 1960 created the Division of Training and in 1963 a new training center was completed on Welfare Island. All training activities moved to this location. It was also the first time "live fire" was used in training. Until that point simulations were with dry hoses and no fire.*

*The current Fire Academy on Randall's Island was dedicated in 1975. The Division of Training was renamed the Bureau of Training in Department Order No. 115 of 1993. This site remains the hub of Fire Department training to this day.*



photo by FF Archie Booker, FDNY Audio-Visual Unit

Maxi Force Air Bag training is part of the auto extrication module taught by Special Projects.

### Professional Development Unit

The Back to Basics program is a nine-hour refresher course in engine company operations. Its format relies heavily on audio visual aids, such as videos, slides and case studies to focus on critical points graphically. The classes also emphasize student participation by using a member's actual field experience to help other class participants. This discussion develops the full range of options available to an engine company.

This class has three main objectives: It reviews basic engine company firefighting procedures to reduce vulnerability to death and injury on the fire ground; it clarifies proper tactics and procedures to create a safe work environment through the use of established Department procedures; and it reviews those strategies that promote efficient and timely extinguishment of fire. The results of efficient operations are reduced fatigue on Department members and equipment as well as a reduction in civilian deaths and property damage.

As of January 1997, the unit has trained 60 Captains from the Captain's Development Course. Additionally, approximately 4,900 members from the field and 288 probationary firefighters have been trained.

### Rescue School

The Technical Rescue School instructs personnel belonging to the Fire Department's five Rescue companies and two Squad companies. Personnel are trained in high angle rope operations, confined space operations, building collapse operations and heavy rigging operations. A member is taken off the line for the 40-hours required to complete this training.

All instructors are members of the Special Operations Command and have distinctive skills. Additionally, they complete the New York State approved course in Educational Methodology. The school issues certifications from the state Office of Fire Prevention and Control in all subject areas. The school works closely with the New York State Fire Academy in developing its ongoing instructional programs. The program has graduated 260 members since its inception in October 1996.

### Rope/Ceremonial Unit

The primary responsibility of the Rope Unit is to teach field units the evolutions and associated training bulletins involved with the Department's ropes and the personal harness. For members already issued harnesses, this is an excellent refresher. Units are called to the Academy for instruction and practice with the Life Saving Rope. The Unit has also been assigned the additional role of the Department's ceremonial unit.

Since September 1996, when the Unit was assigned the role of ceremonial unit, 41 ceremonial functions were planned and supervised. These range from funerals to Medal Day, all requiring meticulous planning, follow-up and coordination with other agencies.

### Special Projects

As its name implies, the Special Projects Unit usually has several "special" training programs running concurrently. The Special Projects Unit has always tried to be proactive regarding the "job's" training needs. So, the type of training conducted by the unit changes from

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time to time along with the requirements of the Department.

The Auto Extrication training module is one of the most comprehensive in the nation. It includes the use of Maxi Force air bags, Hurst tool equipment, sawzall and the air chisel. This program is currently divided into two sections. Each section contains a classroom lecture and an afternoon hands-on clinic using these tools on derelict cars supplied by the Department of Sanitation. This training is given to all ladder companies. Exposure to the techniques of extrication is given to all probationary firefighters and to officers in FLSTP.

The first day of training deals with the Hurst tool and related equipment, such as the sawzall and air chisel. The second day involves training with the Maxi Force air bag system. The lecture portion of Day 2 also covers the lifting of structural beams and heavy equipment. Personnel who complete the two-day program are given Certificates of Completion from the state Office of Fire Prevention and Control in Auto Extrication.

The teachers in this program are all certified by the same agency as NYS Accident Victim Extrication Training Instructors. Other members teaching in this program are also certified as NYS School Bus Extrication Instructors. Additionally, the unit has received advanced training from the Hurst Tool's manufacturer and have received certificates of completion as Hurst Tool Instructors. The instructors received similar training from Holmatro Tools on their system.

Additional advanced training will begin with the advent of Protocol and Vehicle Extrication Emergencies Training (Pave Training). This program will explain the protocol at vehicle extrications according to FDNY All Unit Circulars. This training will be a joint training program with the Bureau of Emergency Medical Services and Ladder companies. Training will include safety, disentanglement and extrication with an emphasis on a unified team approach.

After each company has completed their automobile extrication training, they receive training with Purple K extinguishers for use at alternative fuel fires. This training is required because alternative fuels are now found on a variety of vehicles from buses to Brooklyn Union Gas vehicles. For example, New York City Transit Authority buses may now be carrying up to 300 gallons of methanol. Other alternative fuels fire units may find are ethanol, compressed natural gas (CNG) and liquefied propane gas (LPG).

The lecture portion of the class covers the proper use as well as the maintenance and refill of Purple K extinguishers. Emphasis is always on proper technique and safety.

### **Collapse Training**

Collapse training is being given to all Rescue companies, Squad and Rescue support trucks. This program uses two training scenarios, one vertical and one horizontal. The focus is on void entry and rescue in a collapse situation. Companies physically assemble shoring and cribbing in the collapse modules with the goal of safely removing the mannequin from a simu-

lated collapse. An assortment of tools is used to successfully complete this drill from squares, levels, circular saws and sawzalls to simple hammers and nails.

The members of this unit are all experienced in collapse rescue through their job experience in Rescue companies. Many members of this unit are also members of FEMA and Collapse Rescue Teams. One member recently set up a course for the New York State Fire Academy entitled Basic Collapse and Shoring Operations.

A Chain Saw Training Module was created to teach the safe and effective use of chain saws. At this time, additional saws are being placed in service in several boroughs. The Department is issuing chain saws to Ladder companies to remove downed trees or debris in order to assist injured or trapped persons, establish road clearance to allow the passage of emergency vehicles and to mitigate unsafe situations while leaving the area as safe and secure as possible.

Instructors in this program have all previously worked for private contractors or have been self-employed in the tree care business.

### **Confined Space Training**

The FDNY created the Confined Space Training Program to train Rescue companies in confined space operations. This training program is designed to fully comply with the U.S. Department of Labor, OSHA rule 29 CFR 1910.146. The unit gives this training by two methods: Training units in the unit's quarters followed by a drill conducted at a location within the company's response area; and bringing Rescue companies to the Fire Academy to train in the Confined Space Simulator under several different emergency rescue scenarios.

The training includes the recognition and evaluation of confined space hazards; atmospheric monitoring and general testing protocol; ventilation, isolation and lockout/tagout procedures. Victim assessment, personal protective equipment, communications and communication systems, heat stress and, finally, victim retrieval and retrieval equipment are also covered.

Instructors in the Confined Space Program have all completed the FDNY 20-hour Technical Rope Rescue course. In addition, they are certified by the state Office of Fire Prevention and Control as Confined Space Awareness and Safety Instructors and Rescue Operations II—Confined Space Instructors.

### **Battalion Foam Coordinators**

The Special Projects Unit also conducts a three-day foam coordinator's course for Battalion Foam Coordinators. Approximately 20 Battalion Chiefs attend this course at one time. The first two days are dedicated to classroom lectures, the third is devoted to a hands-on drill with a foam company. Additionally, the unit conducts periodic drills with foam units. And, as new equipment is assigned to the foam units, they are detailed to the Academy for training.

The classroom section of training for the Battalion Foam Coordinators includes the mechanics of foam, guidelines for the use of foam on hazardous liquids, the

different types of foam and their uses, the storage of foam concentrates, the methods and equipment needed to generate foam, as well as vapor control of chemicals by foam. The classroom problem-solving portion includes calculating spill application rates, calculating tank application rates and mixing problems. This course also includes practice and review of the various foam evolutions from a foam concentrate multiple supply system to high expansion foam generator use.

In 1996, the Special Projects Unit trained 6,285 members. This figure includes 1 Deputy Chief, 19 Battalion Chiefs, 37 Captains, 858 Lieutenants, and 5,370 firefighters.

### **Tactical Training**

The Tactical Training Unit is currently conducting the "Staying Alive" program. Two Engine Companies and one Ladder Company are called to the Academy from specific training groups. This training is also offered to units whose rigs are undergoing preventive maintenance at Building #6.

The morning session is classroom instruction. It reviews a recent fire with fatalities to members of this Department. The format includes a video that is followed by an exhaustive sequential review of the fire and a critique. The two-hour lecture is closed with the lessons learned and a discussion period. The lecture portion emphasizes the "team concept", i.e., communications, the necessity of getting and testing a hydrant, the inherent dangers of free-lancing, etc.

In the afternoon, the companies operate their rigs and respond to a simulated fire. Even the preventive maintenance companies are given an assignment. Members of the Captain's Development program are utilized as Acting Battalion Chiefs, giving them practical experience as Incident Commanders. New first line supervisors are also included in the scenarios as company officers.

Smoke generators and "mars" lights are used to indicate the fire areas. The apartment door in the multiple dwelling building and the roll down gate at the taxpayer fire scenario must be forced to gain entry. In addition, real life problems such as hydrants out of service, the need to relay water, burst lengths, loss of water on the fire floor, injured victims, and members trapped are all added.

The fire is then critiqued by the Tactical Training Unit with the emphasis on learning. The field units are given a questionnaire to allow them to critique the training or to offer suggestions or express special concerns.

The Tactical Training Unit has extended this training to 2,104 officers. This figure includes 166 Battalion Chiefs, 518 Captains and 1,420 Lieutenants. A total of 9,138 firefighters have been trained. This includes officers being retrained after nine months off the line.

To increase the exposure of the department to this training, the unit has expanded its operations to include night training. Units are called to the Academy on 6X9 tours to participate in fire scenarios that include stretching and operating hose lines and ladder operations. At

the conclusion of the scenario each officer is asked to comment on the operation.

### **Roof Training**

A roof training site has been constructed behind the Private Dwelling building. This structure includes the fly section of an aerial ladder to provide roof access and the usual skylight, scuttle cover and gooseneck ladder in the rear. It duplicates the roof of a tenement.

There are two typical pre-cut holes in the roof. The covering of the roof is three layers of membrane type that is now widely in use.

Beneath the skylight, scuttle cover and roof cuts are ducts positioned to distribute "smoke" to each area during venting procedures. Saw operations involve operating the saw blade around existing saw cuts, but 2x4 inch roof members are inserted adjacent to the 3x10 inch roof rafters. This technique allows firefighters to operate the saw and actually cut and remove the membrane covering, and the 1x6 inch roof boards. The "smoke" pushing out around the cut appears quite realistic.

Decisions and procedures affecting roof operations will be reviewed by our tactical training officers.

All aspects of training are supported by the Audio Visual Unit, the Graphics Unit and the George F. Mand Library and Research Center, all located at the Bureau of Training.

### **Audio Visual Unit**

The Audio Visual Unit produces FDTV programming, a cablecast that runs two hours a day from Monday through Friday. FDTV is a training service sent directly to those firehouses equipped to receive it. The A/V Unit also films and produces the Commissioner's Message, Public Service Announcements, documentation of events and ceremonies. This includes sending video crews to record all types of training, newsworthy events and fire scenes.

### **Graphics Unit**

The Graphics Unit is in the process of replacing outdated drawings in Fire Department publications with computer graphics. Additionally, it creates original graphics for training purposes. This unit supports training with special projects such as chart designs for the Physical Fitness Unit; the drawing of plans for the simulated Old Law Tenement training roof, etc. The Graphics Unit also performs the typesetting for training aids and it creates the computer graphics for Power Point presentations.

### **About the author...**

*Captain Thomas A. Robson was appointed to the New York City Fire Department in January 1979 and was promoted to the rank of captain in July 1995. He is currently assigned to Division 1 and is detailed to the Bureau of Training.*