

**GOAL 1.0 IMPROVE EMERGENCY RESPONSE OPERATIONS**

Enhance the Department's preparedness to respond to fires, emergencies, disasters and acts of terrorism.

Overview

The Department's highest priority is to enhance its ability to respond to fires, hazardous materials incidents and emergencies that require pre-hospital care or search and rescue, as well as disasters and terrorist acts. The FDNY Strategic Plan for 2004-2005 was enormously successful in furthering the Department's emergency response and preparedness capabilities. Specific achievements include training and operational initiatives, such as Incident Command System training for all Fire and EMS members of every rank; training and placing into service 25 Special Operations Command (SOC) Support Ladder Companies; adding three HazTech Engine Companies; and increasing the agency's Hazardous Tactical (HazTac) ambulance capabilities from 10 to 35 units. The Department also completed the design and purchase of two state-of-the-art Mobile Command Vehicles and procured two new 27-foot Boston Whaler fireboats to cover Staten Island and Manhattan waterways.

In addition, the Department automated its FDNY member recall process with enhanced capabilities that enables the agency to target its recall of members from a specific unit, Battalion, Division or rank; implemented an additional communications channel between on-scene CFR-D Engine companies and EMS Command; and simultaneously implemented a second EMS City-wide channel to enhance overall response to a potential multiple-casualty incident in the City.

To increase overall response capacity, the Department successfully negotiated and finalized mutual-aid agreements with New York State and Nassau County to provide fire service mutual aid. FDNY also finalized agreements with New York City Regional Emergency Medical Services Council (REMSCO) for mutual aid within the City and a State-wide EMS Mobilization Plan with the State Department of Health, as well as with New Jersey. Lastly, the Department finalized all-hazards emergency response plans that address biological, chemical, radiological, nuclear and improvised explosive response, developed a risk assessment internal web site of designated priority locations and established an FDNY Center for Terrorism and Disaster Preparedness.

In this section of the Strategic Plan for 2007-2008, FDNY identifies new initiatives that are vital to Fire and EMS operations in terms of both day-to-day operations and responses to disasters or terrorist acts. The Department's strategy to increase operational preparedness includes: 1) improving the delivery of pre-hospital care capabilities by more fully integrating EMS and the fire services; 2) significant technology enhancements of voice, data, telecommunication and video networks to improve on-scene response operations and further development of a Network Centric Command to provide critical information to the Incident Commander; 3) expanding and enhancing training for Probationary Firefighters; 4) training initiatives to ensure the maintenance and sustainability of core competencies and specialized skills; and 5) in the event of a City-wide disaster, to ensure continuity of Department operations through the development of business recovery action plans.



Objective 1.1 Implement initiatives recommended by the Fire/EMS Integration Plan Task Force to enhance coordination of operations and the deployment of resources that will improve overall system performance and service delivery of pre-hospital medical care.

Background

At the time of the EMS/FDNY merger in 1996, the FDNY was the largest fire department in the country. After the merger, it became the largest fire department-based emergency medical service and the primary provider of pre-hospital emergency care in the country. Many significant improvements in pre-hospital medical care were achieved during the early years of the merger, including decreased response times and an enhanced quality of care. For example, implementation of the Certified First Responder-Defibrillator (CFR-D) program has helped create a three-tiered emergency response system in New York City. CFR-D is the first and most basic level of training, followed by Basic Life Support (BLS) Emergency Medical Technicians (EMTs) and Advanced Life Support (ALS) Paramedics. The merger has made this tiered response more effective, generating shorter response times and saving the lives of countless New Yorkers every year.

On the 10-year anniversary of the EMS merger into the FDNY, the Department has redoubled its efforts to improve the overall effectiveness of the delivery of pre-hospital emergency medical care in New York City and further integrate EMS into the Department. As part of its key management and organizational development goals, the FDNY established an Executive Task Force, chaired by the Chief of Department, charged with conducting a comprehensive review of the status and progress made in the delivery of pre-hospital care during the past decade. The Task Force recommended several key objectives. These objectives are to further: 1) improve the quality of pre-hospital medical care delivery in New York City; 2) improve the coordination of the FDNY's overall response to potentially life-threatening medical emergencies; and 3) enhance FDNY preparedness for disasters and terrorist events that may result in multiple-casualty incidents.

Accomplishments

Among the accomplishments from 1996 to 2006 was the decrease in response times to the most serious medical emergencies from an average of eight minutes, 31 seconds, to its current six minutes and 40 seconds. When FDNY CFR-D engines are factored in, the average response time is further reduced to four minutes, 25 seconds, to priority life-threatening calls. The Department increased the number of ALS tours provided by FDNY EMS from 126 to 158, purchased two state-of-the-art Mobile Emergency Response Vehicles (MERVs) to provide on-scene triage and treatment facilities and one Mobile Respiratory Treatment Unit (MRTU) and dramatically increased the number of ambulance stations from 16 to 31. The EMS Command restructured its field organization so that five Divisions now are aligned with the FDNY Borough Command structure to optimize integration of the two field service arms of the Department. Additionally, EMS provided new portable radios to its supervisors to address the issue of interoperability with the police department and continued to enhance field supervision to address its Officers' command and control issues. Most recently, with inter-agency support, a GPS-based ambulance Automated Vehicle Locator (AVL) project has been implemented successfully in all five boroughs. AVL is further reducing response times by greatly enhancing EMS' capacity to maximize unit assignments and creating dispatching efficiencies.



Next Steps and Time Frame

To accomplish these goals, the FDNY seeks to develop a multi-system approach to increase capabilities, capacity and proficiency of pre-hospital care through the careful design, study and pilot implementation of a number of initiatives. These include:

- Develop new Advanced Life Support First Responder (ALS-FR) Units
In 2005, both the New York City REMSCO and the New York State Emergency Medical Advisory Committee (SEMAC) approved the FDNY's application to allow the Department to staff non-transport ALS units with one NYS/REMAC-certified EMT-Paramedic and one NYS-certified EMT. The FDNY recently obtained the New York State Department of Health's approval for this initiative.

The FDNY Strategic Plan for 2007-2008 proposes a study and careful evaluation of newly developed ALS-FR units. If the evaluation produces the anticipated benefits, this implementation period will permit the FDNY to expand ALS-FR non-transport ALS first responder units City-wide. These ALS-FR units will function in a defined response area as an initial responder when they are the closest unit to an incident or as a supplemental responder. The ALS-FR units will augment the NYC 911 System's medical response to life-threatening medical emergencies and provide additional mass-casualty incident responses.

The anticipated benefits of this ALS-FR model are to increase the capacity for the Department to provide an ALS resource at all types of incidents, improve the overall quality of ALS services delivered to the public, decrease ALS response times and provide an efficient and cost-effective use of current Fire Department resources. The Department will consider the feasibility of piloting two types of ALS-FR units:

- Paramedic Response Unit (PRU) would increase daily EMS field supervision and enhance the mentorship and training of new EMTs and Paramedics in the field. The PRU would be staffed by a Paramedic-certified EMS Officer and an EMT and would be fully equipped as a non-transport unit to respond with a BLS ambulance or supplement an ALS ambulance response.
- Paramedic Rescue Engine (PRE) is a five-Firefighter Engine Company, which would be staffed with a Firefighter/Paramedic and a Firefighter/EMT. The Firefighter/Paramedic would be able to operate in contaminated and dangerous environments to perform lifesaving advanced medical care and rescue. PREs would respond to life-threatening medical emergencies, similar to CFR-D, but would have the additional benefit of providing a higher level of pre-hospital care.
- Develop, review, study and evaluate the efficacy of a hybrid deployment model to include cross street, firehouse and EMS station deployment, tailored to individual borough and neighborhood characteristics. The FDNY anticipates that the piloted implementation of a hybrid deployment model will have multiple benefits, namely to maximize utilization of existing facilities and resources, increase ambulance unit in-service time and availability within an assigned response community, increase response capacity, increase EMS field supervision and ultimately strengthen the relationship between Fire and EMS personnel in the performance of their overlapping medical duties.



- Consider developing stronger supervision and new career development pathways for each rank within EMS to change promotion lines from EMT to Paramedic and then Paramedic to Lieutenant. Consider changing the requirement of EMS Lieutenant to require EMT-Paramedic/REMAC certification and subsequently require EMT/Paramedic certification for promotion to EMS Captain and/or Chief and require that Paramedic certification be maintained for the tenure of the position.
- Evaluate the feasibility of changing the Firefighter open competitive examination to require EMT certification as an entry requirement for the position. Consider bonus points for candidates who are Paramedics.
- Consider a change in the Firefighter promotional requirement from EMS to require maintenance of the EMT and Paramedic certification.
- Evaluate the feasibility of developing a mechanism to provide EMT and Paramedic certification and recertification to Firefighters and Officers.
- As a component of the proposed studies and pilot programs described above, Fire Operations will evaluate restructuring the administrative roles of Fire and EMS Officers to allow Fire Company Officers to assume a portion of EMS Officers' daily administrative responsibilities. This would permit the Department to deploy EMS Officers to assume additional field responsibilities, including direct medical service response and enhanced field supervision.
- The Department will design a series of studies and pilot programs for the new response units and models and is working to identify areas of the City with different neighborhood characteristics in which to pilot the proposed new service models.
- The Department will identify key indicators and measurements from which to evaluate the proposed service models and will work in collaboration with oversight agencies, labor unions, the voluntary EMS providers and hospital sectors throughout the development, implementation and evaluation of these studies.

Lead Bureaus

- Fire Operations
- EMS Command

Objective 1.2 Develop a Network Centric Command to provide Incident Commanders with on-scene critical information, enhance emergency response and provide a safer operational environment.

Background

As part of commitments made in FDNY's Strategic Plan for 2004-2005, the Department has made significant strides in upgrading current systems and identifying future communication and technology requirements that will enhance FDNY's emergency response. Because the Department's needs are evolving constantly, close coordination is required among FDNY uniformed Officers and the Department's communications and technology managers.



Effective strategic and tactical decision-making at major incidents requires that Commanders exchange timely and accurate information. To facilitate the management and exchange of information, the Department continues to develop a Network Centric Command system. Network Centric Command, the integration of voice, data and video information through state-of-the-art technology, will assist the Incident Commander in decision-making during an incident. Essential technological components, such as the Fire Department Operations Center, Electronic Command Board, Field Communication System, Risk Assessment Target Hazard Program, Helicopter Video and Geographical Information Systems (GIS) Imaging, establish a robust network for information-sharing to improve on-scene situational awareness. During an incident, Network Centric Command supports information-sharing among City, State and Federal agencies to provide a common operational picture. This integration will result in enhanced collaboration and synchronization of information to maximize an effective command.

In the aftermath of the WTC attack, the Department made the redesign of its communications systems a top priority. The Fire Department recognized that this effort required a high level of analytic and technical expertise, as well as staffing that went beyond the current capacity of the Department's support services personnel. FDNY contracted with a consultant to perform a detailed analysis of the Department's on-scene tactical communications. This contract includes extensive in-building testing with the goal of developing system models that will allow for the implementation of various communications components to provide more reliable and effective in-building communications. FDNY will ensure that the system design meets emergency operations communications requirements; provides Firefighters, EMTs and other first responders with voice communications to and from all types of structures (both below-ground and high-rise buildings); and provides sufficient redundancy to allow continued operation even if components of the infrastructure are not functioning. The system also will allow for interoperable communications between FDNY and other agencies involved in emergency operations and be flexible enough to incorporate new technologies as they emerge. The design also will take into account the needs of the Fire Department during large-scale or multiple incidents.

Accomplishments

- During the past two years, the Department has successfully developed key projects that are in various phases of implementation. Among the FDNY's highest priority technology initiatives is the successful transformation of the FDOC that possesses new state-of-the-art capabilities to function as an off-site command post. Among the FDOC's capabilities is video teleconferencing and on-scene video footage from media and police helicopters. The FDOC also has additional mapping capabilities and the ability to generate site-specific historical and hazard data from Department databases. The Department also is developing the capacity to gather critical data from multiple sources simultaneously, including information from the three new mobile command vehicles, to best support command and control at any major incident in the City. Additional achievements will include real-time, GIS-based unit deployment and tracking model program customized to meet commanding Officers' needs to assess unit deployment. The development and roll-out installation of an Automated Vehicle Locator system in 388 FDNY EMS and 288 voluntary ambulances also was completed in August 2006. The installation of the AVL system for fire apparatus was completed in August 2006 and the integrated mapping display of all units was completed in October 2006. Field testing of the prototype of portable PC-based Electronic Command



Boards also is underway and will be completed in 2007. In addition, the Department appointed a Staff Chief to manage the Bureau of Communications. He is working with the Department's technology experts and other support staff, to ensure that voice, data and video information-gathering activities will be integrated to provide Incident Commanders with critical on-scene information.

Next Steps and Time Frame

As highlighted above, a number of technology projects have significantly advanced the capabilities of the Department to respond to everyday emergencies and critical incidents. In light of this success, the Department must further develop the organizational and management structure necessary to sustain this technological evolution.

- FDOC plays a vital role in the network centric command system by supporting information-sharing within the Department and among City, State and Federal agencies to improve situational awareness. To fulfill this responsibility, the Department will create a director's position, under the Chief of Communications, to manage information-sharing and implement the new functions of the Fire Department Operations Center.
- Uniformed members will be assigned to the Chief of Logistics to perform research and development, field input and testing, project prioritization and implementation and evaluation of new technologies.
- The Department will research the technological feasibility of developing a Member on Duty System (MODS). MODS will validate and confirm personnel responding on apparatus to emergency incidents utilizing radio frequency identification data. The aim is to provide more accurate information to Incident Commanders with up-to-date, real-time information on those members actually responding to an incident on Department apparatus. The Department will provide a multi-phase pilot program and purchase the system during 2007.
- The Department will research the technological feasibility for developing 3-D in-building firefighting tracking. A personnel tracking system will permit on-scene wireless tracking of FDNY personnel as they move throughout high-rise buildings and assist in locating Firefighters who may become disabled and/or unable to request assistance or in the event of a large-scale building collapse.
- The Department's communications consultant will develop a comprehensive analysis of options and recommendations for the complete redesign of the FDNY's operational voice communications system. The final report of the Department's Radio Infrastructure Study will be completed by 2007.
- Operations personnel will work with Fire Prevention to incorporate fire prevention databases into a risk assessment-based system with essential information and data readily accessible to field units and Incident Commanders.



Lead Bureaus

- Bureau of Operations
- Bureau of Technology and Development Services
- Communications
- Fire Prevention

Objective 1.3 Extend and enhance training provided to Probationary Firefighters.

Background

The Department's outstanding Fire Academy on Randall's Island currently provides 13 weeks of training to FDNY's Probationary Firefighters. For the 2007 Firefighters' examination, certain background requirements were altered, including a reduction in the number of college credits required to become a Firefighter. The FDNY immediately sought to increase the training period for new Firefighters to ensure that their knowledge base and skill level are as high as possible.

Accomplishments

The Department has drafted a proposed curriculum for the expanded training and begun planning regarding how to implement the program.

Next Steps and Time Frame

The Department will undertake all necessary efforts to:

- Significantly extend the period Probationary Firefighters spend at the FDNY Training Academy.
- Significantly enhance training by expanding modules covering ladder and engine operations, building inspection and fire prevention and other key areas, while increasing physical fitness training.

The expanded training program will be implemented in January 2008.

Lead Bureau

- Training

Objective 1.4 Develop training initiatives to ensure the maintenance and sustainability of core competencies and newly acquired specialized competencies and skills for all first responders.

Background

The Department's Bureau of Training has dramatically increased the knowledge, capabilities and skills of the Department's current uniformed firefighting and EMS members with support from the U.S. Department of Homeland Security (DHS) grants. Key core and specialized competency



areas include Incident Command, Technical Rescue, Hazardous Materials, Harbor Response and WMD. The next challenge is to develop short- and long-term initiatives that will ensure the Department maintains this new level of competency and skills in the future. This objective will require a renewed commitment of grant funding, as well as creative internal training programs that will enable the FDNY work force to remain confident and in a state of readiness to use their newly acquired knowledge and skills.

Accomplishments

During the past two years, the Department has conducted ongoing training at the Fire and EMS Academies for Probationary Firefighters, new Fire Lieutenants and Captains. In addition, the Academies have provided Personal Safety System and EMT and Paramedic upgrade training, as well as safety apparatus driving courses. The Bureau of Training also targeted new training to increase the skills of Incident Commanders and the Special Operations Command. All 14,500 Fire and EMS personnel were trained and became familiar with the principles of the National Incident Management System (NIMS). SOC capabilities were substantially increased when 25 new SOC Support Ladder Companies and 25 Decontamination Engine Companies were trained and equipped, along with their associated Battalion Chiefs. These new units are grouped into Technical Decontamination Task Forces for response to potential WMD events and other disasters. Additionally, four new Hazardous Materials Technician Engines, 29 Chemical Protective Clothing (CPC) Ladder Companies, three Marine Companies and 35 Hazardous Tactical (HazTac) ambulances also have been designated and outfitted for hazardous materials response. More than 117 new units, coupled with the 13 existing units in Rescue Operations and Hazardous Materials groups, provide the Department with broad capability and flexibility for dealing with large-scale or multiple events, such as explosions, collapses and/or chemical attacks. The remaining 330 Engine and Ladder units also have been trained in operational response to WMD attacks and outfitted with radiological detection devices and dosimeters to be assigned as Mass Gross Decontamination Task Forces for WMD or other incidents. The Harbor Response Training program expanded the marine firefighting response capabilities to 185 companies that are located in all five boroughs, representing nine Divisions, 25 Battalions, 79 Engine Companies, 56 Ladder Companies and 16 SOC units. This critical training enables Department personnel to better respond to a natural or terrorist incident in and around the City's harbors and ports.

Next Steps and Time Frame

As outlined above, the Department has focused heavily on the expansion of its training programs. The primary training and operational priority is to maintain the readiness of all units and personnel and ensure that the specialized disaster response equipment remains serviceable and "state-of-the-art." Among the initiatives to continue this essential level of skill and capabilities are:

Training Support:

- Develop a permanently funded, formal training unit assigned to conduct specialized technical training to the SOC Support Ladder, CPC, Decon Engines and Battalions, HazMat Technician Units and HazMat Company 1.



- Enhance the Basic Skills Refresher Training for all newly developed Special Operations units and explore training 25 additional Engine Companies and Battalions to Technical Decontamination status. Expand the current competency training teams to one per Division to maintain the skill levels of these specialized companies.
- Establish a position in the rank of Battalion Chief to coordinate, conduct and evaluate the effectiveness of Department-wide haz-mat training.
- Continue to increase the Department's capability to respond to the heightened terrorist threat and natural disasters in New York City's harbors, ports, infrastructure and vessels.
- Increase Incident Command System training programs to include the National Response Plan and meet the changing standards developed by DHS. In order to qualify for DHS funds, all members required training to the IC-700 level and Chief Officers required training to the IC-800 level by October 2006.
- Develop a yearly refresher training program for Engine Company Chauffeurs to develop skills for maintaining water supplies at catastrophic events and to develop alternate water supplies in the event of failure of the City's main hydrant water system.

Equipment, Facilities and Infrastructure Support:

- Identify funding for the ongoing costs associated with maintaining specialized equipment, including meters, chemical protective clothing and response vehicles, and establish an appropriate equipment replacement cycle.
- Research and identify expansion of facilities to adequately store and secure all new equipment and vehicles that have been obtained using DHS and other grant-funding sources. For example, the new collapse units, collapse shoring PODs, Purple-K dry chemical trucks, Rapid Response Vehicles, Large Capacity Water Delivery Systems, Rebreather apparatus and Decontamination Units require proper storage. Additionally, specific sensitive equipment requires climate-controlled conditions. The Department anticipates needing approximately 10,000 to 13,000 square feet per borough of additional storage capacity, decentralized to include facilities in every borough.
- New York Harbor remains vulnerable to both terrorism and natural disasters. The aging fleet of the Fire Department's Marine Division is in need of continuing support. Although two new 140-foot fireboats are under design and construction, the remaining vessels are in need of maintenance and replacement. Replacements for the current two 52-foot fireboats is needed, as well as procurement of a marine travel lift to facilitate removing the most vulnerable, newly acquired, 27-foot boats from the water during the approach of a tropical storm or hurricane. These smaller boats then can be returned to the water as quickly as possible and placed into service as soon as the storm passes to begin search, rescue and firefighting functions. Funding will be sought to address these needs and also provide water-protective clothing, as well as additional small boat and motor capacity to field Battalions throughout the City. These small boats can further assist in evacuation, rescue and firefighting in potential flooded areas.



Lead Bureaus

- Training
- Fire Operations
- EMS Command
- Support Services

Objective 1.5 Develop an FDNY Continuity of Operations Plan (COOP) that in the event of an emergency or threat of an emergency, ensures the continuation and uninterrupted delivery of critical services to the public and other agencies.

Background

In accordance with requirements of the Federal Preparedness Circular 65, issued by the Federal Emergency Management Agency (FEMA), FDNY is undertaking a comprehensive review of its essential operations and support functions and will develop a Continuity of Operations Plan (COOP) for the entire Department. A COOP is defined as a process whereby government agencies and private organizations identify key functions and develop plans that will enable them to continue to perform essential functions in response to all hazards and a full spectrum of threats, including natural, manmade, technological and accidental or attack-related national security emergencies. A COOP provides protocols for re-establishing essential administrative, communication and support services should primary facilities become disabled or untenable. Formulating a COOP is an important part of good business planning.

Accomplishments

The Department established a COOP Project Team charged with developing an in-depth, agency-wide plan. The COOP Team members attended a COOP exercise with the District of Columbia Emergency Management Agency, which was sponsored by the General Services Administration/FEMA. The COOP Team members attended a COOP Train-the-Trainer session and completed the COOP on-line training program sponsored by FEMA. The COOP Project Team's first concrete task was to expeditiously develop an information-gathering phase of this multi-dimensional project. Phase I of the initiative required the Team to develop a comprehensive survey instrument to be disseminated to all Bureau Managers, Executive Staff and Staff Chiefs. The questionnaire required that each Bureau, Division, Command and sub-unit conduct a complete review of its essential functions, personnel, procedures, facilities, transportation and resources, as well as data and telecommunication systems. The survey instrument also required each Bureau, Division, Command and sub-unit to summarize existing back-up and recovery procedures and mechanisms. Lastly, the questionnaire required that each manager articulate the need for additional back-up and recovery procedures, mechanisms and new resources that will ensure the continuity of each operation and function in the event of a future system-wide disruption or emergency.

*Next Steps and Time Frame*

- The COOP Project Team is in the process of analyzing the data, identifying gaps and will develop a preliminary Department profile by December 2006.
- The Team will draft a COOP document and identify the tasks and resources needed for its implementation, such as space requirements, alternate facilities, additional communications and technological systems, orders of succession, COOP Site Support officials, COOP Relocation Teams, Crisis Management Teams, etc., by July 2007.
- The Team will be responsible for the development of training exercises on each component of the Plan and test the Plan by December 2007.
- The Bureau of Operations will be responsible for obtaining final approval, maintaining the COOP and revising/updating the Plan as needed.

Lead Bureaus

- Fire Operations
- Support Services