[Document 11 — 1988]

ANNUAL REPORT

OF THE

FIRE DEPARTMENT

FOR THE PERIOD

JULY 1, 1978, TO DECEMBER 31, 1987

BOSTON, FEBRUARY 1, 1988

HON. RAYMOND L. FLYNN,
Mayor of Boston.

DEAR MR. MAYOR:

I submit herewith the annual report of the Boston Fire Department for the period July 1, 1984, to December 31, 1987.

During this period, the department initiated a massive rebuilding program to replace antiquated equipment and increase the on-duty strength of the fire fighting divisions and modernized the strategic and tactical operations in the field.

The programs have resulted in the replacement of 75 percent of the first-line apparatus, reducing the average age of such units from twelve years to four years, increased the on-duty strength from 245 members to 300 members and improved the respiratory protective equipment, hose, nozzles and related tools to increase safety and efficiency.

The period also included the complete reorganization of the Fire Prevention Bureau, the Arson Squad, the Communications, Training and Maintenance Divisions and the Management Information System.

The results of these efforts to date have increased the protection of the citizens of Boston dramatically and I intend to continue this trend during the new fiscal year.

I want to thank you for the tremendous cooperation you and your staff have given me to perform these tasks.

Respectfully submitted,

LEO D. STAPLETON,
Fire Commissioner/Chief.

Fire Commissioner, LEO D. STAPLETON

Chief of Department, LEO D. STAPLETON

Deputy Fire Chief, Chief of Operations
JOHN D. WHITE

Executive Assistant to the Fire Commissioner,
GERARD J. HORGAN

Medical Examiner, ALAN W. JENEST, M.D.

Deputy Fire Chief in Charge of Training, Maintenance and Research, MARTIN E. PIERCE, JR.

Deputy Fire Chief in Charge of Fire Prevention Division,
MARTIN FISHER

Deputy Fire Chief in Charge of Communications,
NINO TRAMONTOZZI

Deputy Chief in Charge of Personnel and Safety Division, JOHN E. LOCKHEAD

Superintendent of Maintenance, DENNIS B. FLYNN

Superintendent of Fire Alarm Division,
ROBERT J. MCCARTHY

Chaplains, REV. MSGR. JAMES J. KEATING, Catholic
REV. KEVIN M. TURMAN, Protestant
RABBI IRA A. KORFF, Jewish

Deputy Chaplains, REV. DANIEL J. MAHONEY, Catholic
REV. DANIEL P. HEGARTY, Catholic

STATISTICS

COMPARATIVE FIRE DEPARTMENT EXPENDITURES

	1978-1979	1979-1980	1980-1981
PERSONAL SERVICES			
Permanent Employees	$37,357,478	$45,123,137	$48,986,343
Overtime	1,717,635	3,164,301	1,821,713
Total Personal Services	$39,075,113	$48,287,438	$50,808,056
CONTRACTUAL SERVICES			
Communications	159,753	132,887	157,046
Light, Heat and Power	426,890	418,459	557,156
Repairs and Maintenance of Buildings and Structures	118,957	103,554	100,619
Repairs and Servicing of Equipment	352,965	415,991	272,974
Transportation of Persons	900	2,463	1,207
Miscellaneous Contractual Services	66,919	93,115	49,859
Total Contractual Services	$ 1,126,384	$ 1,166,469	$1,138,861
SUPPLIES AND MATERIALS			
Automotive Supplies and Materials	349,212	435,993	469,698
Heating Supplies and Materials	237,692	367,975	457,915
Household Supplies and Materials	22,260	21,314	15,549
Medical, Dental, Etc.	20	65	906
Office Supplies and Materials	10,010	39,714	32,228
Clothing Allowance	380,000	400,000	600,300
Miscellaneous Supplies and Materials	367,995	367,251	184,079
Total Supplies and Materials	$ 1,367,189	$ 1,632,312	$ 1,760,675
CURRENT CHARGES AND OBLIGATIONS			
Other Current Charges and Obligations	463,400	468,621	952,643
Total Current Charges and Obligations	$ 463,400	$ 468,621	$ 952,643
EQUIPMENT			
Automotive Equipment	65,200	62,905	9,600
Office Furniture and Equipment	800	11,487	12,729
Miscellaneous Equipment	260,822	187,878	377,481
Total Equipment	$ 326,822	$ 262,270	$ 399,810
GRAND TOTALS	$42,358,908	$51,817,110	$55,060,045

* Includes $521,720 Unemployment and Workmen's Compensation.

** Includes $91,733 Unemployment and Workmen's Compensation.

1981-1982	1982-1983	1983-1984	1984-1985	1985-1986	1986-1987
$40,513,911	$46,995,569	$50,820,820	$50,946,851	$55,292,793	$60,157,829
2,140,554	956,434	1,051,803	1,351,865	1,161,425	2,153,673
$43,176,185*	$48,043,736**	$52,872,523	$52,298,716	$56,454,218	$62,311,502
156,511	235,353	298,468	324,809	292,271	432,659
555,498	557,846	599,228	617,373	678,090	587,829
81,935	111,960	170,080	215,012	256,524	338,970
299,142	346,335	537,189	678,343	935,635	790,881
603	2,601	10,749	9,650	20,208	17,338
65,902	579,077	228,121	141,850	229,991	161,279
$ 1,159,591	$ 1,833,172	$ 1,843,835	$ 1,987,037	$ 2,412,319	$ 2,328,956
356,974	346,971	259,804	239,413	198,719	138,104
390,804	376,622	338,449	256,001	274,158	168,953
16,169	18,990	31,274	33,729	35,160	34,483
6	21	4,936	6,853	10,653	10,714
19,352	85,919	37,447	67,196	37,569	41,844
89,350	506,450	509,465	503,745	507,513	533,900
155,354	333,334	613,685	590,547	705,263	765,453
$ 671,035	$ 1,321,336	$ 1,795,056	$ 1,697,484	$ 1,769,023	$ 1,693,451
419,195	1,132,926	758,187	653,868	909,090	638,059
$ 419,195	$ 1,132,926	$ 758,187	$ 653,868	$ 909,090	$ 638,059
—	—	—	—	—	—
1,600	4,177	12,442	22,286	24,316	24,119
38,297	213,994	296,711	501,015	445,709	1,245,697
$ 39,897	$ 218,171	$ 309,153	$ 523,301	$ 470,025	$ 1,269,816
$45,465,903	$52,549,341	$56,578,754	$57,160,406	$62,015,075	$68,241,784

HISTORY

FIRE COMMISSIONERS

*1874-1876	Alfred P. Rockwell
1877-1879	David Chamberlain
1879-1883	John E. Fitzgerald
1883-1885	Henry W. Longley
1885-1886	John E. Fitzgerald
1886-1895	Robert G. Fitch
1895-1905	Henry S. Russell
1905	Patrick J. Kennedy (Acting February 17 - March 20)
1905-1908	Benjamin W. Wells
1908-1910	Samuel D. Parker
1910	Francis M. Carroll (Acting May 27 - September 16)
1910-1912	Charles C. Daly
1912-1914	Charles H. Cole
1914-1919	John Grady
1919-1921	John R. Murphy
1921-1922	Joseph P. Manning (Acting November 8, 1921 - April 1, 1922)
1922	William J. Casey (Acting April 1 - August 24)
1922-1925	Theodore A. Glynn
1926	Thomas F. Sullivan (Acting January 26 - July 6)
1926-1930	Eugene C. Hultman
1930-1933	Edward F. McLaughlin
1933-1934	Eugene M. McSweeney (October 16, 1933 - January 5, 1934)
1934-1938	Edward F. McLaughlin
1938-1945	William Arthur Reilly
1945-1946	John I. Fitzgerald (June 7, 1945 - January 7, 1946)
1946-1950	Russell S. Codman, Jr.
1950-1953	Michael T. Kelleher
1953-1954	John F. Cotter
1954-1959	Francis X. Cotter
1959	Timothy J. O'Connor (March 2 - December 31)
1960-1961	Henry A. Scagnoli
1961-1966	Thomas J. Griffin
1966	Henry A. Scagnoli (Acting July 1 - August 17)

* Previous to 1874, the Boston Fire Department was in charge of the Chief Engineer.

1966-1968	William J. Fitzgerald
1968-1975	James H. Kelly
1975-1984	George H. Paul (from July 11 - January 31, 1984)
1984	Leo D. Stapleton (from February 1)

HISTORY

CHIEFS OF DEPARTMENT

1826-1828	Samuel D. Harris
1829-1835	Thomas C. Amory
1836-1853	William Barnicoat
1854-1855	Elisha Smith, Jr.
1856-1865	George W. Bird
1866-1874	John S. Damrell
1874-1884	William A. Green
1884-1901	Louis P. Webber
1901-1906	William T. Cheswell
1906-1914	John A. Mullin
1914	John Grady (1 day)
1914-1919	Peter F. McDonough
1919-1922	Peter E. Walsh
1922-1924	John O. Taber
1925-1930	Daniel F. Sennott
1930-1936	Henry A. Fox
1936-1946	Samuel J. Pope
1946-1948	Napeen Boutlier
1948-1950	John F. McDonough
1950-1956	John V. Stapleton
1956	Edward N. Montgomery
1956-1960	Leo C. Driscoll
1960-1963	John A. Martin
1963-1966	William A. Terrenzi
1966-1967	James J. Flanagan
1967-1969	John E. Clougherty
1969-1970	Joseph F. Kilduff
1970-1984	George H. Paul (From April 1, 1970, to January 31, 1984)
1984	Leo D. Stapleton

MEDAL OF HONOR MEN
BOSTON FIRE DEPARTMENT
1978-1986
RECIPIENTS OF THE
JOHN E. FITZGERALD MEDAL
FOR THE MOST MERITORIOUS ACT

1978
Fire Fighter James R. Neff
Ladder Co. 18

1979
Fire Fighter James B. Fitzgerald
Engine Co. 24

1980
Fire Lieutenant Edward J. Callahan
Ladder Co. 26

1982
Fire Lieutenant Anthony J. Orlando
Engine Co. 21

1983
Fire Fighter Robert M. Staunton
Ladder Co. 4

1984
Fire Fighter Patrick A. Monroe
Engine Co. 22

1985
Fire Fighter John R. Greene
Ladder Co. 4

1986
Fire Fighter Robert M. Linnell
Engine Co. 7

MEDAL OF VALOR
1978-1986

1978
John J. McDonough, Lighting Plant 1
Robert M. Greene, Ladder Co. 23

1981
Paul M. Lentini, Engine Co. 37
James M. Gibbons, Engine Co. 37

1983
Edward J. Donovan, Rescue Co. 1

1985
James D. Ealey, Engine Co. 3

1986
Thomas L. Conley, Engine Co. 41
Edward R. Connolly, Ladder Co. 17

RECIPIENTS OF THE WALTER SCOTT MEDAL FOR VALOR
1978-1986

1978
Acting Fire Lieutenant Edward J. Hudalla
Ladder Co. 20

1979
Fire Fighter James E. Prokop
Ladder Co. 20

1980
Fire Fighter Daniel J. Chisholm
Engine Co. 18

1981
Fire Fighter John F. O'Neil
Ladder Co. 24

1982
Fire Lieutenant George M. Sacco
Ladder Co. 2

1984
Fire Fighter Patrick F. Foley, Jr.
Engine Co. 22

1985
Fire Fighter Francis J. Mahoney, Jr.
Ladder Co. 4

1986
Fire Fighter William J. Boyle, Jr.
Engine Co. 50

RECIPIENTS OF THE PATRICK J. KENNEDY MEDAL OF HONOR

1979
Fire Lieutenant Charles E. Graul
Ladder Co. 19

1980
Fire Fighter Patrick F. Lee
Engine Co. 2

1981
Fire Fighter Robert T. Gorman
Engine Co. 41

1984
Fire Lieutenant Francis L. McLaughlin, Jr.
Engine Co. 42

1986
Fire Lieutenant Richard L. Harnett
Tower Company

ROLL OF MERIT
1978-1986

1978

Fire Fighter Thomas E. Bernhard
Engine Co. 21
Fire Fighter John E. McNally
Engine Co. 21
Fire Lieutenant Nicholas P. Keenan
Ladder Co. 15
Fire Lieutenant Stephen E. McLaughlin
Rescue Co. 2
Fire Fighter Roger J. Dunn
Rescue Co. 2
Fire Fighter Ronald Gatnik
Engine Co. 52
Fire Fighter Richard L. Stedman
Engine Co. 43
Fire Fighter John L. Cheatham
Ladder Co. 16

1979

Fire Fighter Edward G. O'Brien
Engine Co. 22
Fire Fighter Thomas J. McDuff
Aerial Tower 1
Fire Lieutenant Arthur E. Perkins
Aerial Tower 1
Fire Captain George F. Gravallese
Engine Co. 32
Aide to Chief John W. McDonald
District 13
Fire Fighter Robert M. Staunton
Ladder Co. 4
Fire Fighter Kenneth J. Bresnahan
Ladder Co. 18
Fire Lieutenant James M. Solletti
Engine Co. 1
Fire Fighter James A. Ellis
Engine Co. 22
Fire Fighter Richard A. Laureana
Engine Co. 22

1980

Fire Fighter John J. Harrison
Engine Co. 21
Fire Fighter Paul J. Spacco
Engine Co. 17
Fire Fighter Lawrence F. Rocci
Engine Co. 17
Fire Fighter Timothy T. McGillicuddy
Engine Co. 12
Fire Fighter John P. Carey
Engine Co. 12

Fire Fighter Joseph M. Connolly
Engine Co. 18
Act. Fire Lt. Gerald F. Lucas
Engine Co. 24

1981

Fire Fighter David L. Hale
Engine Co. 24
Fire Fighter John F. Carey
Ladder Co. 28
Fire Fighter Richard M. Feeley
Ladder Co. 28
Fire Fighter Joseph M. Gilmore, Jr.
Engine Co. 18
Fire Fighter William J. McCarthy
Ladder Co. 23
Fire Lieutenant John J. McKenna
Rescue Co. 1

1982

Fire Lieutenant Donald C. Kernan
Fire Prevention Division
Fire Fighter John T. Brignoli
Ladder Co. 7

1983

Fire Fighter Timothy T. McGillicuddy
Engine Co. 14
Fire Fighter Paul P. Keeley
Rescue Co. 1
Fire Lieutenant Martin J. Nee
Rescue Co. 1
Fire Fighter Henry J. Belluche
Ladder Co. 9
Fire Fighter Arthur E. Hitchman
Ladder Co. 9

1984

Fire Fighter Kevin E. Ranahan
Ladder Co. 4
Fire Fighter Henry J. Sheridan
Ladder Co. 23
Fire Lieutenant John J. Simpson
Hdqtrs. (L-23)
Fire Fighter William J. McCarthy
Ladder Co. 23
Fire Fighter John J. Nee
Engine Co. 7
Fire Fighter Edward J. Hudalla
Ladder Co. 29
Fire Lieutenant Donald R. Mullen, Jr.
Hdqtrs. (E-22)
Fire Fighter Joe E. Montoya
Engine Co. 22

1985
Fire Lieutenant Robert J. Counihan
Ladder Co. 29
Fire Lieutenant John J. McKenna
Rescue Co. 1
Fire Fighter Anthony J. O'Brien
Rescue Co. 1
Fire Fighter (Aide to District Chief)
William D. Ferrara
Engine Co. 53
Fire Fighter (Aide to District Chief)
Joseph R. Murphy
Engine Co. 42
Fire Fighter Walter T. McGinn
Ladder Co. 1

1986
Fire Fighter (Aide to District Chief)
Francis L. Shaughnessey
Engine Co. 17
Fire Fighter Reynolds A. Shepherd
Ladder Co. 17
F.F.O.P. Gregory J. Mackin
Tower Company

DISTINGUISHED SERVICE & SPECIAL SERVICE AWARDS

1978
Fire Fighter Peter F. Nee
Ladder Co. 20
Fire Fighter Lawrence C. Holt
Ladder Co. 20

1979
Fire Lieutenant Stephen A. McLaughlin
Rescue Co. 2

1980
Fire Fighter Joseph F. Davies
Aide to District
Fire Fighter James Cullity
Engine Co. 50
Fire Fighter Robert B. MacKinnon
Engine Co. 3
Fire Fighter (Inspector)
George Cameron
Fire Prevention Division (Arson Squad)
Fire Fighter Richard T. Doyle
Ladder Co. 10
Fire Fighter David W. Joseph
Ladder Co. 10

1981
Fire Lieutenant Henry T. Hickey
Ladder Co. 15
Fire Fighter (Inspector)
Michael F. King
Fire Prevention Division
1982
Rev. Daniel J. Mahoney
Assistant Chaplain
1984
Fire Fighter Joseph F. Davies, Jr.
Engine Co. 33
1985
Fire Fighter Robert M. Shaw
Fire Prevention Div.
Fire Fighter Francis X. Donlan
Fire Prevention Div.
1986
Fire Captain James Evans
Engine Co. 4
Fire Fighter Edward Finch
Ladder Co. 24
F.F.O.P. Frank Rogier
Ladder Co. 24
F.F.O.P. William M. Gillis
Engine Co. 10

RECIPIENTS OF THE FIRE COMMISSIONER'S AWARD

1982
Fire Lieutenant Anthony J. Orlando
Engine Co. 21
1983
Fire Fighter Robert M. Staunton
Ladder Co. 4
1984
Fire Fighter Patrick A. Munroe
Engine Co. 22
1985
Fire Fighter John R. Greene
Ladder Co. 4
1986
Fire Fighter Robert M. Linnell
Engine Co. 7

PLANNING AND LOGISTICS DIVISION

The Planning and Logistics Division is responsible for four specific areas of the Fire Department's daily routine:

1. Office of Civil Defense
2. Emergency Medical Services
3. Underwater Recovery Team
4. Liaison

OFFICE OF CIVIL DEFENSE

The Office Civil Defense maintains contact with Federal and State Offices of Civil Defense, as well as the general public and business community.

The CD office provides radiological monitoring and testing when needed within the city and coordinates with the Police Department for the rotation and calibration of the 860 Radiological Monitoring Survey Meters.

Frequent visits are made to the Taunton Surplus Depot to assure continued participation by the city in the acquisition of surplus property for various city departments.

Necessary records and reports are submitted quarterly to the Federal and State Offices of Emergency Preparedness.

Participation in "disaster drills" are becoming more frequent. These drills involve various city departments and gives opportunity to coordinate emergency planning.

Hurricane "Gloria," in September 1985, provided a need to activate the Emergency Operating Center (EOC) in City Hall. Although the hurricane did not reach maximum potential in Boston — and thus test our resources — it did test the system and revealed some strong and weak points. It did emphasize the need for a Comprehensive Emergency Management Plan and Mayor Flynn requested the State CD to assist Boston in preparing such a plan. The state has provided a Planning Team which is working with this office in developing such a plan.

EMERGENCY MEDICAL SERVICES

The Emergency Medical Services provides leadership to several ongoing programs. Training is provided at every fire house on current techniques used to perform C.P.R. (Cardiopulmonary Resuscitation) and other lifesaving measures, as well as training in the proper use of Emergency Medical Services equipment and materials. All members are required to have C.P.R. training on a yearly basis under the First Responder Law. New recruits are instructed in and must satisfactorily complete the twenty-six-hour First Responder Course by Massachusetts state regulations.

The office keeps abreast of the latest techniques and procedures in emergency medical care through liaison with the American Red Cross, Office of Emergency Medical Services of Massachusetts, American Medical Association and through attendance at various training seminars.

The recertification of Registered Emergency Medical Technicians is coordinated through this office. Presently there are 120 Registered Emergency Medical Technicians in the Boston Fire Department. A twenty-one-hour Refresher Course for EMTs is conducted annually at our Academy. A monthly mailing has been instituted to provide our EMTs with notice of various seminars in order for them to acquire the number of continuing education credits necessary to recertify.

This office regularly attends various seminars on infectious diseases to gain up-to-date information. Department protocol is kept current for follow-up when dealing with a person who is suspected of having an infectious disease. Individual pocket resuscitator masks have been issued to all engine and ladder companies in order to provide members with a safe and sensible solution to prevent cross contamination from exhaled air. AIDS is of special concern to our members, so we have continual contact with the Department of Health and Hospitals to assure us of the latest information and precautions.

Starting in 1984, all companies have been issued new Trauma Kits. These are inspected, cleaned and restocked with bandaging materials, splints, obstetrical kits and back boards as needed.

All Ladder and Rescue Companies are equipped with resuscitators. During the past year, new Flynn Resuscitators were purchased and put into service on some engine companies in order to provide a faster response time to persons in need. Calibrations and repairs are done by this office at a savings to the city.

This office conducts drills in the proper use and precautions of the survival suits assigned to certain companies. Warm- and cold-water drills are conducted each year to ascertain the suits buoyancy.

UNDERWATER RECOVERY TEAM

The Underwater Recovery Team is comprised of a Lieutenant/Dive Master, an Assistant Dive Master and seven other divers all carefully selected. The members of the team work a regular schedule on their assigned company but are on call at all times for response to water-related emergency incidents. They are notified of their need from the Fire Alarm Office via the page system.

Bimonthly drills help to maintain a high level of proficiency by practicing under-ice diving, water sled drills, search patterns, signals, and techniques for entering water from various shore ar-

eas throughout the city. Other drill facets include familiarization of piers and wharves, use of compass, and checking of dive equipment to assure constant readiness.

The team keeps abreast of the latest diving techniques and procedures through publications on the subject. New equipment and knowledge is constantly being developed to improve the safety and efficiency of divers. Seminars are attended on various aspects of diving.

Records of drills and diving incidents are maintained. Routine maintenance and repair service for the hulls of the two fire boats is provided as necessary. This includes removal of debris which accumulates on shafts and propellers which, left unattended, could cause extensive damage. By performing this service for the Marine Unit, the city is saved considerable expense and it reduces the time the boats would be out of service.

The team regularly responds to:

1. Incidents involving motor vehicles in the water;
2. Incidents involving possible drowning victims due to accidents, attempted suicides, capsized vessels, and air craft;
3. Pier and vessel fires which may include use of Monitor nozzle;
4. Maintenance and assistance on Marine Units and recovery of equipment lost overboard;
5. Requests from Fire Investigating Unit to seek and recover items involved in arson investigations;
6. Requests from Police Department to assist in recovering crime evidence;
7. Calls from U.S. Navy or Coast Guard to assist.

LIAISON

The Planning and Logistics Division serves as liaison between the Fire Department and many public and private agencies which include the Mass. Department of Public Works, Mass. Turnpike and Mass. Port Authorities, MBTA, Boston Public Facilities, Police, Transportation Department, Health and Hospitals, as well as other city agencies such as Boston Water and Sewer Commission, Housing and Redevelopment Authorities. Liaison is also maintained with the private sector which includes meetings with developers and contractors of the many projects presently planned or in progress in Boston, and with utility companies (Boston Edison and Boston Gas). Recently added is the Third Tunnel Crossing Committee.

This division continues to work closely with the MBTA. This includes annual testing of sections of the subway standpipe system and is done after trains stop operating for the night. First alarm companies are used for the tests as this provides them with

familiarization of the various stations. Present plans call for extending the subway platforms on the Red and Orange lines to accommodate longer trains. This involves street openings and changing street traffic patterns in the downtown area. This is addressed at preconstruction meetings and allows the Fire Department to add input on these projects before the plans are finalized. The Southwest Corridor project is nearing completion and test are being conducted on this standpipe system as sections become ready.

Availability of adequate water at easily accessible locations is a major concern for fire fighting. We are working with responsible agencies and departments to improve water resources at the Tobin Bridge, Callahan and Sumner Tunnels, Deer Island and various construction sites throughout the city.

The division attends preconstruction conferences with the Boston Public Works Department before work is started on street construction. Our concern is the adding or relocating of hydrants, if necessary, and to assure the design does not prevent easy access to all streets and buildings by the Fire Department. Information regarding such work is forwarded to Deputy and District Fire Chiefs and when deemed necessary is posted in Special Orders. The Fire Alarm Office is always kept advised of temporary or permanent changes that might affect apparatus response or fire-fighting operations.

Close coordination and cooperation continues with Boston Water and Sewer Commission who receive daily reports from us relative to defective hydrants. They advise us when repairs are made and this information is disseminated to the fire companies. A major concern of both parties is the illegal use of hydrants which wastes water and also reduces the water pressure and volume available from hydrants for fire fighting.

TRAINING, MAINTENANCE AND RESEARCH DIVISION

The primary function of the Training, Maintenance and Research Division is twofold:

1. To initiate and supervise the job development of the fire fighter, commencing with the probationary period and continuing throughout his career.

2. To become involved in research programs designed to improve fire-fighting techniques, fire-fighting apparatus and equipment, and protection of fire fighters; to prepare specifications for new fire apparatus; to test and evaluate newly acquired fire apparatus; to test and evaluate new tools and appliances before recommending their use in the department.

The following summary covers in general the activities of this division.

Available Facilities

Training, Maintenance and Research Division Office, Headquarters Building.

Fire Fighting Equipment Stockroom and Repair Facility, Headquarters Building.

Memorial Hall, Headquarters Building.

John A. Martin Fire Academy. Moon Island.

Compressed Air Tank and Fire Extinguisher Recharging Station, Moon Island.

Compressed Air Cylinder Recharging Station, (5,000 pound capacity), Headquarters Building.

Department Drilling and Training Program

This division develops, formulates, and conducts drilling and training procedures covering the wide range of subjects, both basic and newly developed, that must be taught and reviewed to insure efficient operations at fires and other incidents requiring the response of the Fire Department. It is absolutely essential that personnel of our department be trained and continuously reviewed on the necessary tasks facing them in the fire service. A manual of standard operating procedures, previously established, covering the various activities of this department for the guidance of personnel and for uniform operations of the department was used in our training programs. These procedures are revised as required.

Basic Fire Fighting

This department conducted courses of instruction in the fundamentals of fire fighting and fire safety for groups in the city and within the surrounding areas. The facilities of the Fire Academy, as well as the classrooms are used. These groups included other fire departments, insurance companies, security agencies, police departments, municipal organizations, hospitals, etc. In addition, members from the various surrounding fire departments have attended our probationers' drill school.

Mutual Aid Program for emergency recharging of high-pressure, air mask cylinders initiated with Mass. Training Academy, Cities of Quincy, Revere, and Worcester.

Surveys
Inspections and Tests

Annual surveys, inspections, and tests are carried out throughout the department to determine the condition of the various

tools and appliances used in the fire service. It is of extreme importance that periodic tests and checks of equipment be carried out to also insure the safety of personnel who may be called upon to use this equipment.

Servicing and Repair Programs

In order to maintain and guarantee safe and continuous operations of fire-fighting equipment, tools and appliances, a year-round service and repair program is conducted by this division, at our repair facilities at Headquarters and at the Fire Academy. These facilities avoid delay and reduce the cost to the city of servicing and repairing this equipment.

Inventory — Fire Fighting Equipment

In order to carry on our servicing and repair programs and to insure the efficient operation of companies at fires, it is necessary for this division to maintain an inventory of fire-fighting tools, equipment, and parts for the same. This requires extensive record-keeping and constant review.

Research

A very important function of this division is to conduct tests and experiments and thoroughly evaluate the merits of new equipment, materials, and appliances developed for the fire service. We are always alert to take advantage of progress made by manufacturers when the purchase of equipment becomes necessary and manufacturers are encouraged to submit samples of their products for test and evaluation.

Protective Clothing and Equipment
Work Clothes and Uniforms

Field testing and evaluation programs will continue in an effort to obtain safer, suitable, nonhazardous and flame retardant materials and products for fire fighters. Flame retardant sweat shirts, shirts, trousers and work gloves have been issued to the members of this department.

Fire Coats

Various types of fire coats continue to be field-tested and evaluated in the department. New specifications were formulated by this division in an ever-continuing effort to design and produce a coat suitable for fire-fighting purposes.

Fire Helmets

Field-testing will continue to be conducted on the various

models and types of materials. Leather and plastic fire helmets from Cairns Company are presently being field-tested in various fire companies in the department. Nonmetallic and other designs are being examined.

Fire Boots

Field-testing and evaluation on various types of boots, and related equipment was continued.

Miscellaneous Fire-Fighting Equipment

Testing and evaluation on various tools and equipment, including nozzles, hose, fire-extinguishing compounds, rescue and forcible entry tools, etc. were continued.

New Equipment

The following equipment has been placed in service:
Amkus Rescue Systems
Holmatro Rescue Systems

Hose

Each engine company of the department has been equipped with 650 feet of 4-inch high-volume hose, a hydrant assist valve and an incoming relief valve. With the addition of this equipment, the water supplies at the fire scene have been greatly improved, thereby improving the overall fire-fighting operations.

The 1¾-inch hose is another piece of equipment which has greatly benefited the department. This hose, being light weight and easily maneuverable, can be put into operation quickly to deliver 200 gallons per minute.

Protective Breathing Equipment

All the 4.5 air masks of this department have been converted from demand to positive pressure operation.

Hydrant Thawing Devices

The hydrant thawing devices are in the process of being rebuilt.

Recruit Training

From 1985 to 1987, ten recruit classes, totaling two hundred and forty-eight new trainees, both male and female, have been trained, tested and graduated from the Moon Island Training Academy. These people are now in their assigned companies doing fire duty. Additional classes will be trained until the proper complement has been attained.

In addition to the training of the new recruit classes at the Academy, a constant program of instructions and drills is held at both company level and at the Academy. For example, a maze has been constructed at Moon Island for additional training and confidence enhancement in the use of the 4.5 air mask. The entire fire-fighting force has completed the first phase of this training and is now progressing through additional phases.

The convenience of video cassettes makes it possible to expand upon the training program at company level. With the cassettes, many subjects can be introduced and drilled upon, such as high-volume hose, fire-fighting techniques, fire-protective clothing, safety factors, etc.

The Training, Maintenance and Research Division of this department compares favorably with the outstanding training set-ups throughout the country. We have every reason to believe that the Fire Department will continue to be trained and maintained at this present high caliber and that progress through teaching and training will be the forerunner of greater efficiency.

FIRE PREVENTION DIVISION

Fire Investigation Unit

The Arson Squad of this division is charged with the responsibility of investigating the cause and circumstances of every fire and explosion occurring within the city limits. The Boston Fire Department and Boston Police Department combination Arson Squad went into effect in April of 1977 and is still in progress. This has greatly increased the efficiency of the Arson Squad as shown by the number of arrests and convictions. Results of investigations are to determine whether a fire was caused by carelessness, design, or is a violation of law. These investigations are carried on for the use of the Boston Fire Department in removing causes of fires and explosions, apprehending of culprits responsible for fires, and turning over all the facts and evidence to the State Fire Marshal. Many hours are spent on these investigations. The work done by the Fire Investigation Unit Squad in obtaining these convictions deserves a "well done" because arson is a difficult crime to prosecute and requires many hours of hard work.

In 1982, in order to eliminate duplication of efforts, a cohesive strike team was organized consisting of Fire Department personnel, three Boston Police detectives, and agents from the Alcohol, Tobacco, and Firearms Division of the Treasury Department. The newly enlarged arson squad was moved to larger quarters at a disbanded firehouse next to Fire Headquarters where two computer consoles were installed. One of the computers is directly

connected to City Hall and gives access to the records of other city departments such as the Building and Assessing Departments. All arson case data is now being entered into the WANG and IBM Computer systems; using the new report format called the BARS system — Boston Arson Reporting System — which is a complete arson reporting and tracking system that allows for the translation of the narrative report into computer format. The sorting and analysis of information by computer allows the arson investigator to study each fire location in relation to an entire neighborhood as well as with other case histories with similar characteristics.

Meetings are held at Fire Headquarters with Arson Investigators from surrounding cities and towns to discuss the arson problem on a metropolitan basis and to see if any similar patterns existed in the other communities. Many of the suburban cities were experiencing arson problems and we discovered the same patterns emerging in the suburbs, such as changing neighborhoods, gentrification, deteriorating housing, over-insurance, straw ownerships, etc. The meetings were considered successful with the goal of sharing information to be pursued in the future.

Meetings are also held during the year with representatives of other city departments in an attempt to maintain an inventory of structures so that they can be identified as hazardous locations during fire-fighting operations if necessary. A file of current and previous owners of vacant structures is also helpful to the Arson Investigator.

The Fire Department encourages citizen participation in any arson problem by holding meetings with neighborhood groups at which people are urged to maintain surveillance over vacant structures and report suspicious behavior in their neighborhood to the Arson Squad.

During the calendar year 1985, the Fire Investigation Unit responded to 2,236 incidents and complaints. As a result of these responses, ninety-one arrests for various crimes of arson and incendiarism were made, and accounted for approximately 546 court appearances. Of the ninety-one persons arrested, seventy-two have been adjudged to have some degree of guilt in the crime he/she had been accused of.

When we look back at the statistics for building fires for 1985, we note that there were 140 incidents originally classified undetermined, 50 incidents originally classified arson/incendiary, and 425 incidents originally classified as suspicious, it is interesting that the seventy-two convictions cleared up a total of 142 incidents. There are still some persons who were arrested during 1985 for the various crimes of arson/incendiarism that have not been adjudged as yet; and those incidents that have not been cleared are still considered open and under investigation.

During the year 1985, from June 1 through August 31, an intense study of automobile fires was undertaken by this unit to determine, if possible, the reason for the high incidence of vehicle fires in the city. At this time, I report that the preliminary findings were contrary to our original premise, i.e., that there was a great deal of owner fraud.

The information concerning vehicle fires is still being analyzed in order to make inroads into this crime and thereby reducing it.

The Fire Investigation Unit is also involved in the Juvenile Fire Setters Program sponsored by the F.A.I.R. Plan — where a juvenile who may have a problem with some type of fascination with fire is brought in to a psychological setting and evaluated. If the juvenile needs counseling the plan provides for said counseling and help, until the problem is successfully overcome.

During the calendar year 1986, the Fire Investigation Unit/ Arson Squad responded to 871 incidents for building and motor vehicle fires. An additional 1,080 other investigations (Attempts to Burn, Threats to Burn, False Alarms and Follow-ups) were conducted during the year. These investigations resulted in 94 persons being arrested, which entitled a total number of 650 court appearances by members of this unit. The outstanding accomplishment was that said responses, investigations and court appearances brought about 92 convictions for violations of the law during the year 1986.

Inspection Activity

The Night Division of Inspection concentrated its efforts in the area of high population wherein our citizenry may be assembled for shopping, amusement, or entertainment with particular emphasis in regard to places of public assembly in the City of Boston.

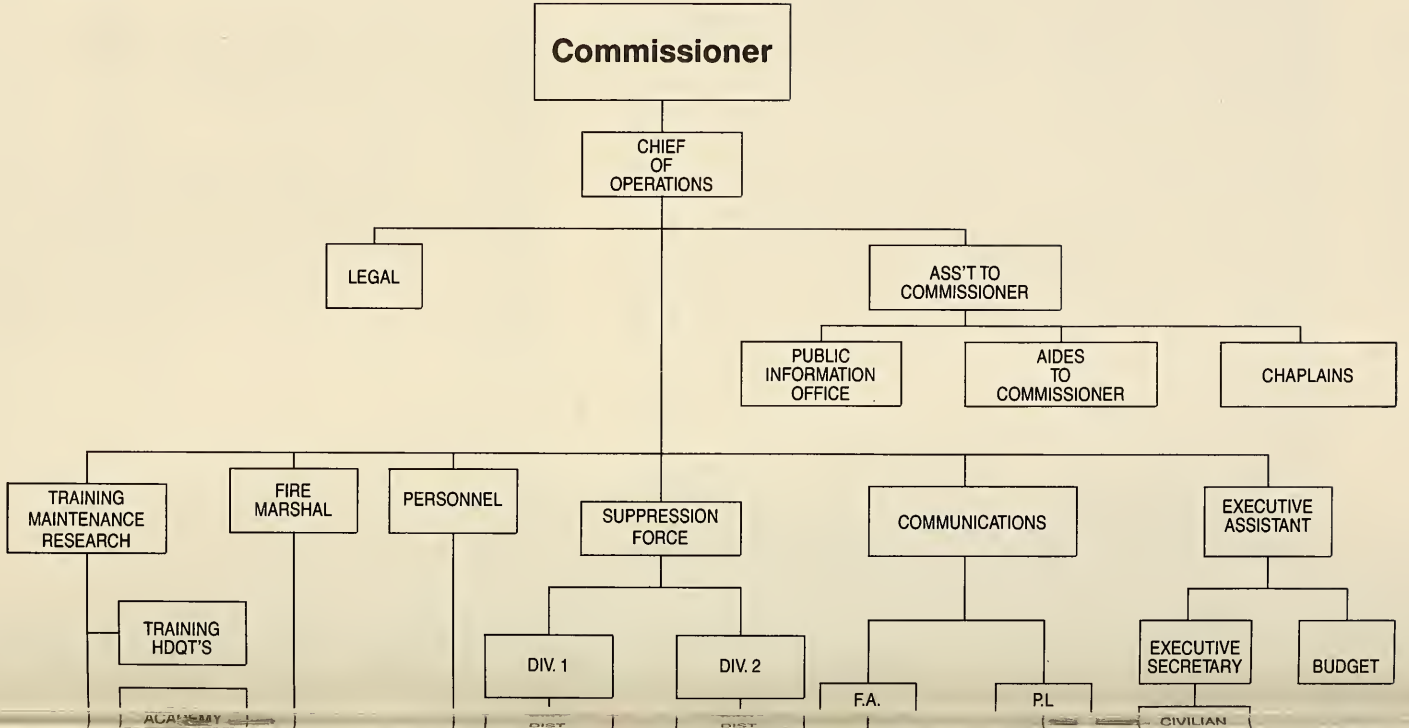
The building inspection program is still being maintained at a high level. A total of 36,784 inspections were conducted during the year 1986. This allows the Fire Prevention Division to keep a very close surveillance on demolitions and removal of all debris from their location, thereby allowing for both the prevention of blight in the neighborhood and increasing the fire safety of the neighborhoods. This program also includes the supervising and posting of hazardous location signs.

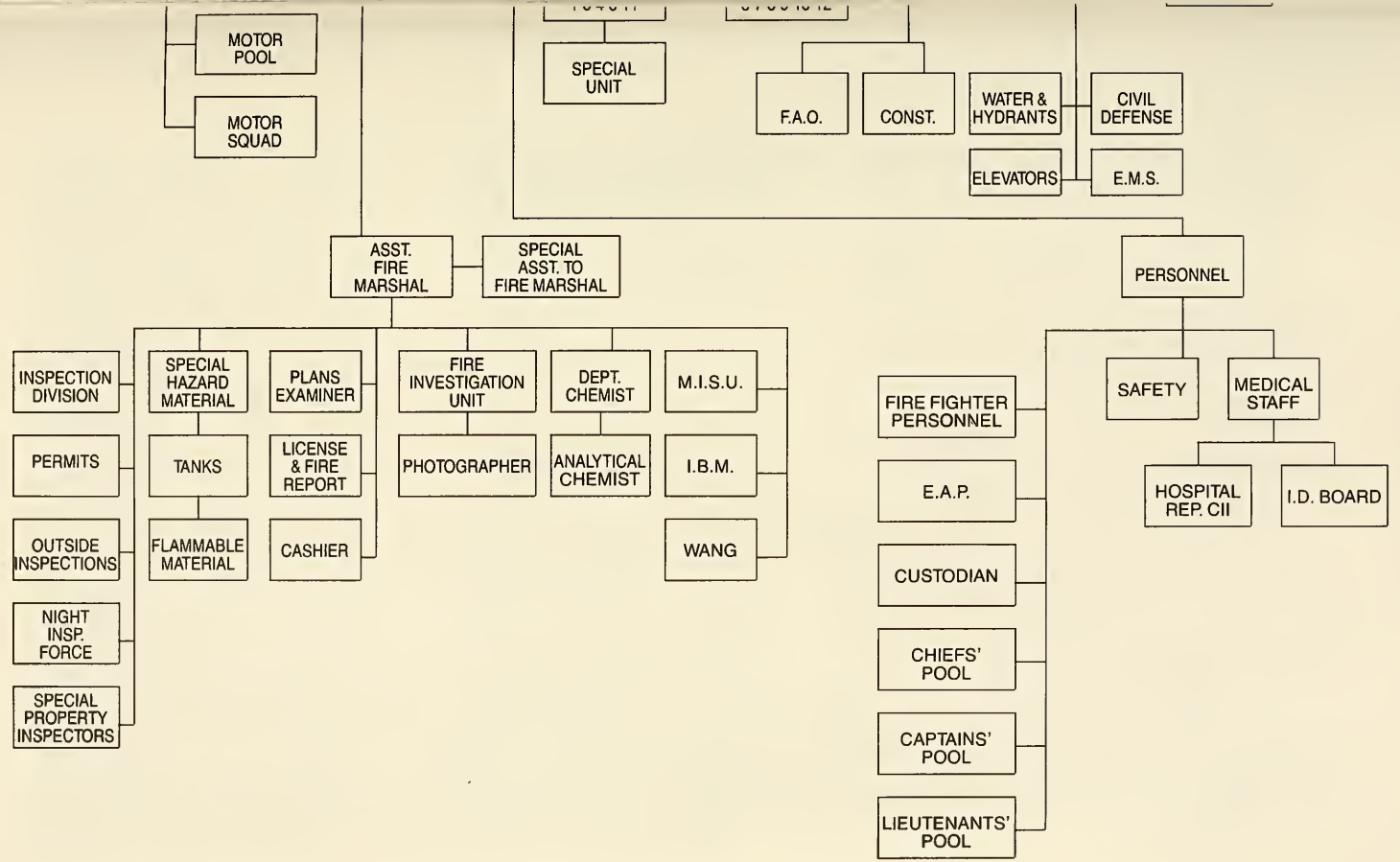
Gasoline tank truck inspections are still in effect in relation to the affixing of safety decals.

All hospitals, clinics, and schools containing laboratories were inspected for illegal use and storage of propane. These inspections remain a continuous effort.

Personnel are assigned to new construction sites for the purpose of ensuring the available water supplies and the fire protection equipment, as well as seeing that good housekeeping is maintained at these sites.

BOSTON FIRE DEPARTMENT
Organization




MOTOR POOL
MOTOR SQUAD
SPECIAL UNIT
F.A.O.
CONST.
WATER & HYDRANTS
CIVIL DEFENSE
ELEVATORS
E.M.S.
ASST. FIRE MARSHAL
SPECIAL ASST. TO FIRE MARSHAL
PERSONNEL
INSPECTION DIVISION
PERMITS
OUTSIDE INSPECTIONS
NIGHT INSP. FORCE
SPECIAL PROPERTY INSPECTORS
SPECIAL HAZARD MATERIAL
TANKS
FLAMMABLE MATERIAL
PLANS EXAMINER
LICENSE & FIRE REPORT
CASHIER
FIRE INVESTIGATION UNIT
PHOTOGRAPHER
DEPT. CHEMIST
ANALYTICAL CHEMIST
M.I.S.U.
I.B.M.
WANG
FIRE FIGHTER PERSONNEL
E.A.P.
CUSTODIAN
CHIEFS' POOL
CAPTAINS' POOL
LIEUTENANTS' POOL
SAFETY
MEDICAL STAFF
HOSPITAL REP. CII
I.D. BOARD

Target Hazards

In keeping with the program, the Fire Prevention Division is continuing on the inspections of large industrial complexes and warehouse areas along with the hospitals and schoolhouse inspections. These inspections are made by officers of the Fire Prevention Division who are accompanied by the district chief of the fire district concerned and the company officer in whose subdistrict the occupancy is located. Some of the inspections were follow-wups of last year and some are new ones that have been added.

In schoolhouse inspections, a lieutenant has been assigned with an inspector from the Department of Public Safety to perform in-depth inspections of all public, parochial, and private schools located within the confines of the City of Boston. These inspections are in addition to the regularly scheduled quarterly inspections required by law and performed by this division in conjunction with fire-fighting officers from the fire districts concerned. The assigned lieutenant worked with officials of the School Department and the district chiefs.

Large Loss Fires

Large loss fires encompassed all sections of the city that taxed the capabilities of the Boston Fire Department. In view of these large loss fires, both in material things and human life, the Fire Prevention Division maintains their "beefed-up" inspection program and their community relations and educational program with neighborhood committee meetings partly aimed at the minority groups located within our city and also those who do not speak our tongue. These educational programs and community relations programs have been aimed at all ethnic communities. This is being brought out by presentations and civic meetings of neighborhood committees and through educational programs in the schools.

Inspection Force

The Inspection Force of this division has established a program of inspection designed so that the occupants of the premises to be inspected can make no advance preparations to circumvent the honest viewing of any location. Additional inspections were made by the officers in the sub-districts where places of assembly are located. In locations requiring a special knowledge, the inspectors of this division specially trained in that field were assigned to make inspections to ascertain that no fire hazard existed or continued due to a lack of knowledge. All matters concerning other city departments were reported by the inspectors of this division on the necessary forms to the department charged with this responsibility.

FIRE DEPARTMENT CHEMIST

The Fire Department Chemist reports to the Office of the Fire Marshal. The duties and responsibilities of the Chemist include the development and implementation of regulations based on the Fire Prevention Code, Article IX, Decorations, Furnishings and Interior Finish, and Article XX, Hazardous Materials and the establishment of an analytical laboratory to support fire investigation. The Chemist is generally responsible in other divisions for technical matters relating to occupational safety and health, protective clothing and equipment and the development of operational procedures for incidents involving hazardous materials.

(1) The Department achieved a substantial increase in the regulation of combustible building contents such as draperies, upholstered furniture, and floor and wall coverings. This action particularly affected materials and products for hotels, hospitals and high-rise office buildings. The enforcement of the expanded fire prevention regulations was achieved in part through information and educational meetings with designers, specifiers, purchasing agents, safety personnel, building owners, and building managers where the Chemist discussed the reasons for the new regulations and then presented visual demonstrations of burning furniture and bedding. He also provided information on the procedures used to apply for, and obtain approval of, regulated materials and products.

(2) During 1982, new testing procedures to evaluate products containing combustible foam padding such as upholstered furniture and mattress pads were implemented, which included the use of full-scale fire tests. Action taken by the Boston Fire Department on the basis of these evaluation procedures has materially contributed to decreasing the risk of serious fire problems in the City. The development of new upholstered furniture with improved fire safety, which is now being specified in many locations throughout the country, has brought national recognition to the department. In April of 1982, the Commissioner, acting on the recommendation of the Fire Department Chemist, issued a ban on the uncontrolled use of highly flammable, foamed plastic mattress pads which were being used in many of the City's hospitals. A number of new mattress pads were subsequently developed and have been approved for use in hospitals. This action received widespread attention and similar regulations have been adopted across the nation.

(3) Administrative procedures were organized to implement and enforce regulations controlling the transportation of hazardous materials in the City of Boston. This effort required designation of special police powers for the Chemist and support personnel to enforce the above regulation. The enforcement ef-

fort included stopping motor vehicles which were transporting hazardous materials, examining the contents, and then carrying out administrative action in court proceedings for the offenders. The result of this effort was possible because of considerable interaction and cooperation between the Chemist and the City Law Department. These regulations have proven effective in substantially reducing the transportation of LNG (Liquefied Natural Gas), LPG (Liquefied Propane), and flammable liquids including gasoline through the city.

(4) The Department Chemist worked with the Fire Fighting Division and the Boston Edison Company to develop a standard operating procedure for responding to fires and other emergencies involving high-voltage transformers. Special procedures were developed to protect members of the department working at incidents which involve the potentially dangerous dielectric fluids containing PCB's (polychlorinated biphenyls).

(5) Activities in the Training, Maintenance and Research Division included updating specifications for fire coats, field testing a new glove for fire fighters, and development of a specification for improved trousers to be worn by fire fighters, particularly when fire boots are not worn. The Department Chemist also represented the Boston Fire Department as Chairman of the NFPA Committee on Protective Clothing and Equipment for Fire Fighters.

(6) The Department Chemist is involved in emergency response to fires and emergencies where chemicals were involved, and where fire fighters or building occupants had been exposed to potentially hazardous conditions. In several of these incidents, it was necessary for the Chemist to don protective clothing and together with suitably protected fire fighters, enter a building which was, or had recently been involved in a fire or where a spill of hazardous material had occurred.

Analytical Laboratory

The establishment of the Fire Department Analytical Laboratory was accomplished in accordance with the order of the Fire Commissioner following the mandate of the Mayor in February 1984. The laboratory is equipped with modern analytical instruments and has been staffed by a graduate intern from Northeastern University and a uniformed fire fighter who was employed in a research laboratory prior to joining the Fire Department. A new position, entitled "Senior Analytical Chemist," was established and filled in 1985 to provide full-time professional staff for the laboratory. The immediate goal is to establish a sound scientific basis for the acceptance by the courts of the laboratory reports and the testimony of the Senior Analytical Chemist in criminal cases. The establishment of the Fire Department Ana-

lytical Laboratory will enhance the capability of the Fire Department to successfully investigate and prosecute cases involving arson.

Control of Decorations, Furnishings and Interior Finish

Under the authority of Article IX of the Fire Prevention Code, the Department Chemist has continued the development and implementation of controls on combustible building contents, including draperies, upholstered furniture, floor coverings, wall coverings and mattresses in hotels and university dormitories. In addition to classification of materials by performance of fire tests, considerable effort was expended to inform and communicate with architects, designers, purchasing agents and sales organizations the importance of these regulations and the procedures for compliance.

In 1985, special controls were ordered by the Fire Marshal for combustible display materials in auditoriums and exhibition halls as part of the Fire Prevention Program for these high-density public assembly occupancies.

Hazardous Materials

Under the authority of the Fire Prevention Code, Article I and XX, the Fire Marshal issued Fire Prevention Order 85-1 to Require a Permit for Asbestos Removal in Boston. The Department Chemist developed this program following the occurrence of several incidents in which fire fighters were accidentally exposed to asbestos dust and the equipment was contaminated. This program required contractors to obtain permits, instituted on-site control of combustible debris, required the use of flame-retardant enclosure materials and instituted notification to the Fire Alarm Office of the ongoing asbestos-removal operation sites so that upon receipt of an alarm, responding companies are notified and appropriate precautions are taken to reduce risk of exposure to the hazardous environmental conditions.

In 1985, fifty-eight permits were issued by the Fire Prevention Division and incidence of Fire Department personnel exposure to hazardous atmosphere containing asbestos was substantially reduced.

The program to identify the location of electrical transformers and other high-voltage equipment containing PCBs and other dielectric fluids was continued in the Fire Prevention Division. Computerization of information has been implemented so that upon receipt of an alarm for any location in the City, the presence of electrical transformers and the type of dielectric fluids present will be automatically indicated to the Fire Alarm Office and transmitted to the responding fire companies and chief officers. The implementation of this program substantially reduces the

occurrence of occupational exposure to the hazardous atmospheres which can be produced when these fluids are spilled or ignited.

Under the direction of the Department Chemist, the Fire Department has developed the capability to provide a technical specialist on-call at all times for response to hazardous material incidents. This capability is provided by the Department Chemist and two alternates who are members of the Operating Division assigned to fire companies. The two alternates have an undergraduate degree in physical science and have received special training in the handling of hazardous materials spills and fires. The ready availability of professional personnel can expedite the resolution of these incidents and reduce the risk of injury to Fire Department personnel.

Massachusetts Right To Know Law

In April of 1985, the Mayor appointed the Fire Department Chemist as the Acting Municipal Coordinator for the City of Boston for the Massachusetts Right to Know Law. The Chemist, or a designated alternate, is available in this capacity at all times. Prior to this time, the Chemist worked with the Department of Health and Hospitals and the Department of Labor Relations to develop a program by which the City could itself comply with the law by providing information and training to employees. The Department Chemist developed and implemented a compliance program for the Fire Department.

Inspection Section

The Inspection Division has been expanded to include an on duty force from 0900-0230 hours.

The Day Inspection Division is available 0900-1700 hours and Night Inspection Division 1830-0230 hours.

The Inspection Division's primary role is to address complaints, follow up on abatement notices and the enforcement of the smoke detector compliance law Chapter 148, section 26F.

The Inspection Division also includes a Hotel/Motel Safety Officer, School Inspection Officer, a Hospital Safety Officer, a Laboratory Safety Officer, a Flammable Decorations Inspector and a Flammable liquid and gas inspection section.

These inspectors are available to assist department personnel in the performance of their duties, as well as performing everyday inspections of the identified properties.

Plans Examination Section

The Plans Examination is mandated by Mass. State Building Code 113.5 and the Boston Fire Prevention Code 1.06D to ap-

prove all plans and specifications submitted to the Building Department which require Fire Protective Systems.

Public Education Section

In addition to the duties of the School Safety Officer is the presentation of Public Fire and Life Safety Education programs. Presentations are made to students, private businesses and civic groups.

Management Information Section

The Management Information Systems Unit is responsible for coordinating all electronic data processing applications and operations. It is responsible for the maintenance and integrity of the Boston Fire Incident Reporting Systems. The MISU issues daily, weekly and monthly reports pertaining to fire incidents and analysis to the Commissioner, Chief of Operations, Fire Marshal, Fire Investigations Unit and other appropriate personnel.

The MISU is also responsible for meeting the reporting requirements of the State Fire Marshal and the United States Fire Data Center.

Photographic Activity

This unit responds to all working fires and multiple alarm fires, accidents involving Fire Department vehicles or property, special calls for specific photographic records, Fire Prevention Code violations and fire hazard conditions for correction or prosecution. Approximately 15,000 prints are made each year. The unit also utilizes video cameras and video cassette recorders when that type of coverage is required. This unit is also a very important part of the Fire Investigation Unit in photographing arson-related materials.

Plans Examiner

Each year the Plans Examiner examines and approves approximately 700 sets of plans. He is also required to convey by telephone, information relative to applicable codes for specific occupancies. Review of plans are made for autonomous authorities, preliminary discussions are made relative to proposed structures with regard to requirements, and appearances are made at both state and local hearings to voice opinions of the Fire Department. As a result of complaint or request, on-site inspections are made of various projects, particularly in the area of self-service gasoline stations prior to their openings to assure compliance with the Fire Prevention Regulations of the state and the fire prevention orders of this department. Research work on existing and proposed code changes or additions are also part of the Plans Ex-

aminer's function. From time to time, he is called upon to read and comment on various items of interest to this department, such as other city code requirements and proposed changes to accepted fire protection reference standards. In addition, clerical work is necessary to maintain microfilm files on projects approved by this department. The Plans Examiner is also a designated representative of the Fire Commissioner at Fire Prevention and Fire Protection Board meetings, and State Building Code Commission.

Another function of this office is to convey information to the public relative to code requirements for smoke detectors, alarm systems, sprinklers, and other fire protection devices.

Fire Prevention Activity

The Fire Prevention Division continues its efforts with an around-the-clock program of fire prevention, 365 days a year. Financial assistance is obtained through funds donated by the Fire Safety Council, which is a citizen-sustained group that aids in the purchase of educational material in our fire prevention program. Their assistance in our effort is extremely valuable.

Members of the Boston Fire Department in uniform, passed out pamphlets containing a brief department history at the corner of Summer and Washington Streets in the heart of the shopping district. Members also passed out approximately 60,000 pamphlets to Senior Citizens and other groups concerning smoke detectors and Life Safety.

General

The Fire Prevention Division maintains a constant, in-service training of all members assigned to this division. Seminars are held for all members assigned to the Fire Prevention Division to keep abreast of current changes in inspection techniques, changes in rules and regulations, or any change in statute law. This includes the explanation, use, and implementation of the new State Building Code with regards to changes as it effects the Boston Fire Department. These seminars are also extended to members of the fire fighting force by holding instructional periods on Fire Prevention Code enforcement, and also instructional courses for officers of the department relative to their responsibilities in inspections, corrections, and the issuance of all necessary notices ordering the correction, or the appearance of delinquents into the various district courts. This also includes Smoke Detector Laws and Ordinances. The constant supervision by the night club inspectors and theatre inspectors of this division results in the continuing correction of any violations or deficiencies or overcrowding in places of assembly. The thoroughness with which the fire prevention inspectors follow through on the

flameproofing of decorative materials used in the various occupancies within this city, i.e., places of assembly, institutions, theatres, etc., maintains a high level of safety to life from fire in these occupancies. The work performed by the members of this division makes the City of Boston a safer place in which to live, work, or play.

PERMITS, LICENSES, AND FEES

During the period covered by this report, 1978 through 1987, the following revenue was collected for permits, licenses, and fees:

1978	$ 66,267.89
1979	484,134,15
1980	448,854.95
1981	305,904.03
1982	223,825.82
1983	481,752.51
1984	547,175.52
1985	706,944.60
1986	753,652.70
1987	1,164,079.18
TOTAL	$5,182,591.35

FIRE ALARM DIVISION

In 1979, the Operating Force of the Fire Alarm Division handled 55,307 incidents. This figure includes building fires, auto fires, medical assist and other related Fire Department responses. The Operating Force received two new fire alarm operators.

The Fire Alarm Construction Force installed 40,550 feet of underground and overhead cable throughout the city. They also received eight new employees as linemen. Various other related work activities were performed, including replacement of defective fire alarm boxes (locks, hinges, shells, etc.). The Construction Force also installed fourteen new EVCS boxes in Roxbury, Dorchester, and Downtown Area to reduce the number of false alarms. With the installation of these new EVCS boxes, the circuits had to be rerouted in some areas. Fire Alarm Inspections of Internal Fire Alarm Systems totaled fifty. New master boxes tied into the Municipal Fire Alarm System was fifteen. Pre-fix boxes discontinued from the records was six. The inside wiremen repaired and maintained all electrical equipment in all Fire Department buildings. Plans reviewed by the Fire Alarm Division

for installation of fire alarm system or relocating cables due to various construction projects was approximately 125.

The Radio Shop started to replace the old radio system with an updated system within the Fire Alarm Office. They also installed new mobile radio units in department vehicles. During the year, the following equipment was purchased by the department: two paging units; eight mobile radio units; and sixteen base station units with testing equipment. Tone keying equipment was purchased and new voting sytems. The arrival of seventy-eight new portable radio units in the department was the start of the upgrading of the Radio System. All of this equipment purchased was installed by the Radio Shop and assigned to various companies throughout the City of Boston Fire Deparment.

During the year of 1980, the Operating Force of the Fire Alarm Division handled 53,717 incidents which resulted in the dispatching of Fire Department apparatus. These figures included building fires, auto fires, false alarms, and medical assists.

The Fire Alarm Construction Force installed approximately 37,000 feet of underground and overhead cables, resulting in upgrading the Fire Alarm System. The Construction Force continued to maintain the circuits and fire alarm boxes. Also during the year, the division installed approximately twenty new EVCS boxes in the Roxbury, Dorchester, and Downtown Areas to reduce the false alarms. The planning process for relocating equipment and cables in the path of the proposed Southwest Corridor Project was implemented. Fire Alarm System inspections numbered in the 100 range of which include Local, Central Station, and Master Box Connections. New master boxes installed into the Municipal System was nineteen. Pre-fix boxes discontinued from the system was eight.

The inside wiremen assisted in the planning and wiring of a new generator at Fire Headquarters. They also installed new electric fixtures at various firehouses. Also they started installing the necessary equipment to be used for the Wang Computer System planned for this department.

The Radio Shop started converting the radio consoles on the Main Floor at the Fire Alarm Office. In preventive maintenance program, they replaced various paging units for Channel 5 receivers in the firehouses. More new equipment was purchased during 1980 as follows: one voting station; four base stations; 200 mobile radio units; and one new radio console unit. All of the above-mentioned equipment was installed by the Radio Shop.

The Boston Fire Department responded to a total of 50,010 alarms during 1981, which is a decrease of 6.9 percent from 53,717 alarms in 1980. False alarms totaled 12,988, including 10,650 boxes pulled false and 2,338 false still alarms.

The number of false alarms has been declining in recent years, partially due to the purchase of new telephone boxes. Although there was no money available in 1981 for additional phone boxes, several of those already in service were moved from downtown locations, where they saw little use, to the East Boston District where they have helped to reduce the false alarm problems in that district. In addition to that program, sixty-eight boxes were removed from service during the year in high false alarm areas and changed to phantom status.

In order to increase fire safety in private buildings containing large populations, forty-three master boxes were installed during 1981, principally in hotels. The total number of box locations has increased from 2,709 in service on December 31, 1980, to 2,722 boxes in service on December 31, 1981.

In the year 1982, the operating force of the Fire Alarm Division handled 44,484 incidents including eighty-one working fires and 177 multiple alarms. The period which reflects a great amount of credit to the operating force from May to August, when twenty-five working fires and eighty-five multiples occurred. This period greatly strained all the resources of the department, but most particularly, those of the Fire Alarm Office. During this period, the on-duty strength of the office was normally four men, but quite often one of these men was a volunteer from the Construction Force whose normal duties did not include dispatching. At a time when it was not uncommon to have two or three multiple alarms at the same time, the Fire Alarm Office met all of the challenges of providing service to the Fire Fighting Force in the manner which the department expects of it.

The Radio Shop is responsible for maintaining thirty-six base stations and twelve satellite receiving sites. These include the four new radio channels, the dispatch channel, Fire District 13, the MBTA tunnel radios, and the paging system.

During the year, four base stations were removed from the Quincy City Hospital and placed at St. Margaret's Hospital to improve coverage in the Meeting House Hill area. Equipment was also installed in Engine 55's quarters to improve coverage in the West Roxbury-Hyde Park area.

The year 1982 was remarkable in that our radio system which includes all of the above equipment, plus 216 mobile radios, ninety portable radios, and receivers and P.A. systems for each firehouse was maintained by three members of the Fire Alarm Division during a period in which the resources of the department were strained to the limit.

In 1982, the Fire Department acquired 1.4 miles of underground duct from the MBTA in connection with the Southwest Corridor development. In addition to this, the Fire Alarm Divi-

sion installed 7,000 feet of sixty-one conductor cable, 5,000 feet of nineteen conductor cable, 6,000 feet of ten conductor cable and 2,900 feet of four conductor cable in connection with the same project. All labor and materials were paid for under a grant from the MBTA.

In cooperation with the Economic Development Corporation, the Construction Force began a major project to replace all the cable in the Old South Boston Navy Yard. Over the course of the next two years, all such cable will be replaced in this area and work will begin on the renovation of the Army Base fire alarm system.

In cooperation with the Boston Redevelopment Authority, that portion of the Charlestown Navy Yard taken over by the BRA was recabled and six voice fire alarm boxes were installed. The cable in that portion of the old Navy Yard, now known as the National Historic Park, was replaced in cooperation with the National Park Service.

During 1982, the construction force erected radio antennas at St. Margaret's Hospital, at Engine 55, and at Faulkner Hospital. They also made the initial installation of conduit at Fire Headquarters for the routing of cable for the new Wang Computer System.

Under the requirements of Fire Prevention Order 80-1, which covers Hotel Fire Alarm Systems, twenty-four hotels were tied to the Fire Alarm Office through the installation of master boxes. In addition to these, thirty-eight other master boxes were installed, including that which protects the USS Constitution.

The division also carried out inspection of 134 fire alarm systems connected by master boxes and removed eighty-four fire alarm boxes from service in connection with the false alarm reduction program.

For the year 1983, the Operating Force of the Fire Alarm Division handled 40,568 incidents resulting in the response of Fire Department apparatus. The Fire Alarm Operating Force was increased by the hiring of an additional five new fire alarm operators.

The Construction Force installed 50,000 feet of underground and overhead cable, which included replacing of defective cable and new cable for new cable routes. This figure includes the cable being installed for the necessary relocations of cable and equipment along the Southwest Corridor Project. Other tasks performed during the year included the preventive maintenance program of Fire Alarm boxes (locks, hinges, ruby domes, etc.).

Inspections increased to about 175 during the year; this included high-rise complex, hospitals, apartment buildings and schools. These inspections included Master Box, Central Station, and Local Systems.

New Master Boxes connected in the Municipal System totaled twenty-seven. Pre-fix boxes discontinued totaled ten. Plans reviewed by the Fire Alarm Division for Internal Fire Alarm Systems was approximately 125. Also other plans were received for various other projects involving the relocation of fire alarm equipment. The inside wiremen continued their program of preventive maintenance on electrical equipment at various department buildings. They also helped in installing wiring and the other related equipment for the new air-conditioning units at the Fire Alarm Office.

The Fire Alarm Division — Radio Shop personnel — started to install new receivers and base station equipment at various locations. Continued to work on the installation of the new radio system throughout the department. Also during 1983, the Fire Department took over the new radio system in the MBTA Subway System. Additional new radio equipment purchased in order to update the radio system was purchased as follows: forty satellite receivers; twelve paging units; and a desk top remote console.

In the year 1984, the Operating Force of the Fire Alarm Division handled 43,499 incidents. Fifty-eight of these incidents were working fires, 84 were multiple alarms and 7,473 were false alarms.

During 1985, the Operating Force received 48,983 incidents. Of these, 54 were working fires, 92 were multiple alarms and 8,829 were false alarms.

The beginning of CAD (computer assisted dispatch) occurred within the Boston Fire Department with the installation of a Wang VS-25 computer at the Fire Alarm Office in 1984. The development of all the various programs and data bases which comprise such a system has been an ongoing project of the division since that time. Because of the restriction on data storage, the system has not yet reached its full implementation. At the present time, the system is used for box and apparatus assignments. Timing of the various steps in the receipt of an alarm has shown that up to three minutes can be saved in the processing of an alarm especially during periods of heavy alarm activity.

A three-minute saving means that the nearest apparatus is at least a mile closer to the scene of the incident than it would otherwise be.

With the installation of newer computers with faster processing times and larger storage media, the Fire Alarm Office can retrieve almost any type of information for use in the activities of the Fire Department. This would include access to other City of Boston data bases as well as the department's own.

The increase in the strength of the Operating Force is also a welcome addition to the efficiency of the Fire Alarm Office.

In 1984, radio repeaters were installed in both the Sumner and Callahan Tunnels, both for use of units working in either of the tunnels or for en-route instructions to companies responding to fires in either East Boston or Boston. This installation was completely funded by Massachusetts Turnpike Authority.

Because of problems associated with a fire in the Turnpike tunnel under the Prudential Center, we were also able to persuade the Turnpike Authority to install a similar radio repeater in this tunnel. This work was completed in 1985.

In 1985, all the fire stations had new receivers installed in them on the new channel 1, 483.1625 mhz. Prior to this, the communications on channel 1 were repeated to the fire stations on the old 33.74 mhz channel.

In the past two years, forty-three pagers were placed in operation on the new radio system.

During 1984, two, new satellite-receiving locations were installed at the William Barton Rogers School in Hyde Park and at the West Roxbury High School to improve portable operation in the Hyde Park/West Roxbury area.

In 1985, a new portable, more resistant to water, was received and placed in operation. It appears to have diminished the portable radio problems related to water.

The following amounts of cable were installed by the Construction Force:

No. of Conductors	1984	1985
Rural C	2,000	4,000
4	5,000	8,000
7	3,000	11,000
10	17,000	5,000
19	8,000	8,500
37	4,850	15,000
61	800	

Two major projects of note were completed in 1985, the replacement and relocation of 7,000 feet of 7 conductor cable in Western Avenue, Brighton. The relocation was from old Fire Department duct to Telephone Company duct, reducing our maintenance requirements on the old duct. The second major project was the replacement of nearly 2 miles of 37 conductor cable from Centre and Moraine Streets to Brigham Circle.

The work on the major phases of the Southwest Corridor cable project has been finished. There is some minor work to be completed. This work was done at no cost to the City of Boston because of MBTA funding.

New Master Boxes Installed		Boxes Placed Back in Service	
1984	65	1984	17
1985	50	1985	2

The number of interior fire alarm systems connected to the Boston Fire Department has increased as shown. Aside from this, there were also plans examination and system inspection/acceptance tests on approximately 500 systems during the two-year period.

A unique, new concept has been added to interior fire alarm systems. In the Copley Place complex, a radio repeater has been installed to insure Fire Department communications in even the remotest part of the complex. This requirement was initiated because of the vast amount of concrete and reinforcing rods required in building construction.

The division, as a result of its action against Cablevision, recovered approximately $24,000 in material for damages to the Fire Alarm System.

A program has been instituted to put new lighting fixtures in a number of the older fire stations and will be continued. The stations affected by this program were Engine Companies 51, 21, 30 and 37. As part of this same program, a new electric service was installed on the fireboats' pier. A part of this work on the pier was as a result of equipment donated by the Massachusetts Port Authority.

In an effort to reduce false alarms from smoke detectors, Fire Alarm Regulation No. 1 has been revamped so that the minimum obscuration of any smoke detector shall be 2 percent and that in all cases the rating of the smoke detector shall reflect the actual conditions found in the areas where smoke detectors are required to be installed.

During the year of 1986, the Operating Force of the Fire Alarm Division handled 49,300 incidents resulting in the response of fire apparatus. The CAD System continued in the forward mode with the additional installation of necessary equipment to make it become a reality in the near future. The installation of the new telephone system moved a step closer with the awarding of a contract. The Fire Alarm Operating force was increased by eight new fire alarm operators. Also the construction force was increased by five new employees.

The Fire Alarm Construction Force installed a total of 42,000 feet of underground and overhead cable in various locations of the City; worked on the defective splices; and replaced defective parts on boxes.

The Inspection Force conducted over 150 inspections involving Fire Alarm Systems connected to Central Stations and Master

Boxes. There were sixty-two installations of new Master Boxes in the Municipal Circuit System. Various surveys were conducted of Fire Alarm Systems that have planned additions or retrofits. A total of 191 plans were reviewed and approved for the installation of Internal Fire Alarm Systems. Plans were also submitted for review regarding the relocation of cables in Charlestown, Huntington Avenue and Nashua Street. Nine new fire alarm boxes were installed in the Prudential Tunnel for any emergency that may arise on the Turnpike Extension.

Inside Wiremen continued to replace defective equipment. Also work was performed on removing wiring and cutting over other wiring at the Fire Alarm Office. Installation continued on the necessary wiring for the Wang Computer System. Wiring was installed to the area of the Dictaphone for Register Circuits.

The Radio Shop installed new radio equipment in the Emergency One Apparatus, District Cars and Division Cars. New portable radios were issued to District Fire Chiefs, Deputy Chiefs in both Divisions and Company Commanders. A new Dictaphone Machine was installed for recording of all messages. Also, the Fire Alarm Register was tied in to same Dictaphone. During the year, the following new equipment had been purchased: seventeen Mobile Units, one Motorola Cellular Phone, twenty-two Portable Radios and fourteen Signal Quality Modules.

PERSONNEL AND SAFETY DIVISION

The Personnel Section supervises, monitors and records all facets of a member's day-to-day career in the fire service, beginning with the selection of recruits, to a member's retirement or separation. This includes the hearing of all disciplinary matters, leaves of absence (sick, injury, vacation etc.), promotional exams, personal days, daily manpower, performance records, all in a master personnel file.

In addition to the above, the years of 1984-1986 saw the development of a Personnel Tracking System making readily available all statistical data related to all members' personal files.

The Safety Division, under the direction of a Deputy Fire Chief along with a District Fire Chief for each working group, is responsible for monitoring evolutions of procedures at fires and proper use of personal protective equipment in an effort to reduce personal injuries and loss of time.

Personal safety being of paramount concern in our department, the Safety Division is involved in testing and the evaluation

of protective clothing, research and field testing of safety equipment and the issuance of new tools and appliances.

Accomplishments in the years of 1984-1986 have included major improvements in our respiratory equipment, issuance of a new personal fire-fighting light and research on a personal alarm signalling system.

SPECIAL HAZARDS RESPONSE UNIT

Boston's Special Hazards Response Unit, better known as the Haz Mat Unit with call letters H 3, was put into service on May 12, 1985.

Recognizing the need for a unit to cope with the increasing incidents in hazardous materials, the Fire Commissioner delegated the task of forming this unit to members and former members of the Rescue Company.

Through the efforts of this team, the vehicle used as the primary section of a four-piece unit consisting of Rescue Company 1, Ladder Companies 15 and 16, along with the equipment carrier, was put together with little or no expense to the City, due to the donation from a national soft drink vendor.

Presently, this unit and its equipment for handling hazardous materials, is equal to and in some cases surpasses that of many large cities throughout the nation.

Members of the team are field testing a variety of hazardous materials equipment, and improvement of existing equipment is ongoing. The constant emphasis is on training and updating methods of handling the unusual incidents. There has been "cross-training" of team members with New York City and units from other large cities. Team members from throughout the northeast met in Brockton to discuss the current status of hazardous materials response.

The future looks bright for members of the department responding to incidents where hazardous materials are present. There are new developments in the field of fire safety with regards to chemical resistant clothing and materials for containing hazardous material incidents, and these products are constantly being added to the Special Hazards Unit.

PUBLIC INFORMATION OFFICE

The Public Information Office has been involved in the direction and execution of the following:

Arrangements for over 5,000 visitors yearly to the various fire stations and facilities of the Boston Fire Department. Acquisition and distribution of printed fire prevention and fire safety material to the above-mentioned visitors and interested parties. News media coverage of multiple alarm fires and unusual incidents, including fatal fires. Maintaining records of multiple alarm fires. Providing research materials and information for television documentaries, radio programs, and newspaper or magazine articles. Research and answering various types of surveys and requests. Participation in several career exhibition programs. Arranging and covering departmental swearing-in, promotional ceremonies and award presentations. Coordination of the Annual Fire Prevention Parade and apparatus competition during Fire Prevention Week. Acting as liaison with the Greater Boston Fire Safety Council, a group of Greater Boston business persons whose efforts assist the Boston Fire Department in the field of fire safety education. Conducted weekly talks and exhibition of films to Boston Housing Authority Elderly Housing facilities throughout the city. Administer United Way Drive and other charitable appeals among Fire Department personnel. Assisted in preparation of Annual Ball Award Certificates. Worked with other governmental agencies in the production of fire safety presentations. Established and maintained Photo Identification Unit. Participated with Department Chaplains, Church Committee and Honor Guard in the preparation of dedications, memorials, funerals and other spiritual functions including submission of obituary stories to local newspapers. Maintained Video Library in conjunction with Fire Prevention and Training and Maintenance and Research Division. Provided assistance and technical advice to production companies filming in the area.

The Public Information Office serves as the connecting link between the Boston Fire Department and the Citizens of Boston.

EMPLOYEE ASSISTANCE PROGRAM

The Boston Fire Department — Local 718 Employee Assistance Program (EAP) is approaching the four-year mark! Launched on its maiden voyage in March, 1983, the EAP has navigated some turbulent waters to firmly establish itself as a necessary and integral part of the department's table of organization.

Along the way, the EAP has also managed to acquire a national reputation as, "one of the most visible and active labor-management EAPs in the country, dealing with a specialized population — fire fighters and their families."

In the short time they have been in existence, the EAP has provided services for more than 375 clients. The client population includes: fire fighters of all ranks; fire alarm office and fire alarm construction personnel; retirees, and civilian personnel attached to the B.F.D., or Local 718. Dependent family members are also eligible for the benefits of the program.

As a "broad brush" model, the EAP is designed to provide services in areas other than substance abuse. That is, referrals are provided — on a confidential basis — for psychological, psychiatric problems; job and/or emotional stress; legal, marital, financial and veteran's affairs. In other words, the EAP has established a network of community resources capable of dealing with any problems that might arise.

The EAP has managed to reach out to other fire departments — locally and nationally — to provide information and serve as a role model to those fire fighters seeking to establish similar EAPs. Both of our coordinators; Bill Ostiguy and Jack Canavan, have represented the department on many occasions, as they appeared at various seminars and workshops, lecturing on the advantages of an effective, labor-management EAP for fire fighters.

The EAP service is available on a twenty-four-hour basis as a cost-free benefit to all personnel. The majority of services are covered by insurance benefits and all inquiries are held confidential.

BOSTON FIRE DEPARTMENT
APPARATUS IN SERVICE
DECEMBER 31, 1987

All units are diesel powered.

ENGINE COMPANIES

2	1985	Em-One Ford	1250 GPM	
3	1984	Em-One Ford	1250 GPM	
4	1987	Em-One Cyclone	1250 GPM	750 Gal Tank
5	1984	Em-One Ford	1250 GPM	
7	1985	Em-One Ford	1250 GPM	
8	1987	Em-One Cyclone	1250 GPM	750 Gal Tank
9	1987	Em-One Cyclone	1250 GPM	750 Gal Tank
10	1985	Em-One Ford	1250 GPM	
14	1985	Em-One Ford	1250 GPM	
16	1986	Em-One Ford	1250 GPM	
17	1986	Em-One Ford	1250 GPM	
18	1987	Em-One Cyclone	1250 GPM	750 Gal Tank
20	1984	Sutphen	1500 GPM	With 67 ft. ladder
21	1985	Em-One Ford	1250 GPM	
22	1985	Em-One Ford	1250 GPM	
24	1986	Em-One Ford	1250 GPM	
28	1984	Em-One Ford	1250 GPM	
29	1984	Sutphen	1500 GPM	
30	1985	Em-One Ford	1250 GPM	
32	1985	Em-One Ford	1250 GPM	
33	1985	Em-One Ford	1250 GPM	
37	1987	Em-One Cyclone	1250 GPM	750 Gal Tank
39	1984	Em-One Ford	1250 GPM	
41	1985	Em-One Ford	1250 GPM	
42	1985	Em-One Ford	1250 GPM	
48	1984	Em-One Ford	1250 GPM	and 1981 GMC 750 GPM Brush Fire Unit 1
49	1978	Hahn	1500 GPM	
50	1984	Em-One Ford	1250 GPM	
51	1985	Em-One Ford	1250 GPM	
52	1987	Em-One Cyclone	1250 GPM	750 Gal Tank
53	1987	Em-One Cyclone	1250 GPM	750 Gal Tank
FB	1979	Sutphen	1250 GPM	
55	1984	Sutphen	1500 GPM	and 1981 GMC 750 GPM Brush Fire Unit 2
56	1985	Em-One Ford	1250 GPM	

BOSTON FIRE DEPARTMENT
APPARATUS IN SERVICE
DECEMBER 1, 1987

All ladder companies have metal aerials, hydraulically operated, and all are diesel powered.

Em-One = Emergency One
TT = Tractor Trailer Type
Rm = Rearmount Type

LADDER COMPANIES

1	1973	Maxim	100 ft TT,	rebuilt in 1985
2	1984	Em-One	110 ft RM	
4	1986	Em-One	110 ft RM	
6	1984	Em-One	110 ft RM	
7	1976	Seagrave	100 ft TT,	rebuilt in 1986
9	1976	Seagrave	100 ft TT	
10	1976	Seagrave	100 ft TT,	rebuilt in 1987
11	1976	Seagrave	100 ft TT	
14	1984	Em-One	110 ft RM	
15	1976	Seagrave	100 ft TT,	rebuilt in 1986
16	1984	Em-One	110 ft RM	
17	1984	Em-One	110 ft RM	
18	1976	Seagrave	100 ft TT,	rebuilt in 1987
19	1985	Em-One	110 ft RM	
21	1976	Seagrave	100 ft TT	
23	1976	Seagrave	100 ft TT	
24	1973	Maxim	100 ft TT,	rebuilt in 1985
25	1976	Seagrave	100 ft TT	
26	1986	Em-One	110 ft RM	
28	1976	Seagrave	100 ft TT	rebuilt in 1987
29	1986	Em-One	110 ft RM	

TOWER COMPANY

1985 Em-One 95 ft RM Aerial Tower with 1500 GPM Pump
1979 Sutphen 1250 GPM/1970 Maxim Squrt, rebuilt in 1986

RESCUE CO. 1

1986 Ford/Em-One Van Aluminum Body — Air Supply System

RESCUE CO. 2

1987 Ford/Em-One Van Aluminum Body — No Air Supply System

MARINE UNIT

1971 Fire boats, 1-6000 GPM, 1-1500 GPM

SPECIAL UNIT

1981 GMC/1970 International Lighting Unit, rebuilt in 1986

HAZ-MAT UNIT

1979 Ford Sutphen Chassis/Aluminum Body — rebuilt in 1987

FIRE STATISTICS

FIRES:	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Buildings	5,287	4,478	4,191	3,062	2,535	1,845	1,641	1,693	1,564	1,499
Vehicles	4,225	4,316	3,527	3,501	3,828	3,601	3,426	3,740	4,102	3,520
Grass-Rubbish	3,190	2,884	3,544	2,443	1,416	1,580	1,516	1,569	1,399	1,170
Rubbish	4,335	3,788	4,040	3,141	2,653	2,260	2,443	2,375	2,266	2,092
Dumpster	2,565	2,972	3,420	2,677	2,606	1,870	1,724	1,682	1,590	1,249
Other	276	252	269	366	122	258	224	227	185	137
TOTAL FIRES	19,878	18,690	18,993	15,190	13,159	11,414	10,974	11,286	11,066	9,667
DOLLAR LOSS (millions)	$15.2	$16.6	$19.5	$21.9	$26.0	$24.0	$29.0	$31.7	$39.5	$36.0
WORKING FIRES	135	100	113	108	81	63	58	54	55	43
MULTIPLE ALARMS:										
2nd Alarms	88	69	92	99	91	61	57	59	53	49
3rd Alarms	28	33	27	29	38	32	12	16	20	12
4th Alarms	11	2	6	17	22	16	7	4	9	5
5th Alarms	13	4	5	7	7	5	3	6	5	1
6th Alarms	—	—	5	7	6	5	2	3	2	1
7th Alarms	—	—	1	4	6	1	1	1	—	4
8th Alarms	—	—	2	2	2	1	—	1	1	0
9th Alarms	—	—	1	2	5	1	2	2	1	1
TOTALS	140	108	139	167	177	122	84	92	91	73

NOTE: Nine-Alarm Running Card in effect on February 4, 1980.