ABSTRACT

This is a description of the Maryland system which was created to evaluate local fire-rescue education and training needs and capabilities and to assist local authorities with fire-rescue education and training. In the first of four parts, a historical presentation is used to identify and describe in general terms the state fire, rescue, and ambulance education and training network. Part 2 covers the physical design of Maryland's fire, rescue, and ambulance education and training system. Part 3 is a detailed description of the Maryland system's components. The specific legal functions and major responsibilities of state boards, agencies, and institutions involved in the training system are presented. Several county programs and a county master plan are also detailed. Part 4 identifies the state planning entities responsible for coordinating the development and production of statewide fire-rescue education and training plans. The appendixes contain (1) a plan developed by the Maryland Fire and Rescue Institute to establish and operate regional centers, (2) Maryland Fire-Rescue Education and Training Commission committee structure and activities, (3) pre-basic training program, and (4) the Maryland fire and rescue advisory group charter. (The 1978 Annual Report of the System is available separately—see note.) (CSS)
ORGANIZATIONAL DESIGN

MARYLAND
FIRE-RESCUE EDUCATION AND
TRAINING SYSTEM

Maryland Fire-Rescue Education and Training Commission

APRIL, 1978
ORGANIZATIONAL DESIGN
FOR FIRE-RESCUE EDUCATION
AND TRAINING ELEMENTS IN MARYLAND
PREFACE

The Maryland Fire-Rescue Education and Training Commission identified the Statewide Organizational Design for fire-rescue education and training in cooperation with the providers and users within the system and under the authority of the Acting Governor of the State of Maryland, The Honorable Blair Lee, III.

The Statewide Organizational Design for the education and training of fire service personnel was developed under the Academy Planning Assistance Program of the National Fire Prevention and Control Administration (Grant Number NFPCA 77069). Participants responsible for the grant were:

- Dr. Sheldon H. Knorr, Commissioner, State Board for Higher Education
- Maryland Fire-Rescue Education and Training Commission Members --
  - Charles W. Riley, Chairman
  - Thomas J. Baginski, Vice-Chairman
  - C. Oscar Baker
  - W. Newton Carey, Jr.
  - Harry Devlin
  - Warren E. Isman
  - Clair Loughmiller
  - Peter J. O'Connor, Jr.
  - Elizabeth Schaefer
  - Ulreich, III
  - Raymond A. Simpson, Jr.
Responsible Staff:
Fred H. Spigler, Jr., Director, Special Programs and Community Service
Frederick E. Porter, Specialist, Fire-Rescue Education and Training

The institutional profiles in this document are brief sketches of the elements within the Maryland fire, rescue, and ambulance education and training system. They are not intended to answer every question, but rather to assist the reader in gaining an understanding of the organization of the training system supporting this State's fire, rescue, and ambulance services.

This Organizational Design describes what exists today -- it is not intended to postulate what should be in the future. However, the preparation of this Design has stimulated existing interest in this State's fire-rescue training systems and has pointed out the need for an overall educational and training plan. The development of Maryland's fire-rescue education and training system has been a continuous process for over six decades. There has been a continued willingness within the fire service to work toward educational and training self-improvement. It would be proper to applaud all of those individuals who have dedicated so much time and energy toward making the fire service in Maryland what it is today.
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INTRODUCTION

The citizens of Maryland have been in a constant battle to protect themselves and combat the horror and destruction caused by fire. Today in this State it is the local fire and rescue departments which provide the primary force in combatting the devastating effects of fire. The members of these departments, whether they are career or volunteer, have dedicated themselves to the protection of life and property. Personal sacrifice and hazardous work have remained their only sure reward.

Maryland's modern technical society has dictated that all of those involved in fire, rescue, and ambulance services be prepared to deal with any emergency situation which may impact on its citizens or property. The list of emergencies to which fire and rescue personnel must respond is unending. Any of the basic elements of disaster, whether it be fire, accident, health or hazardous/toxic materials, can erupt any time, anywhere and require instant attention. Providing this attention remains a local responsibility.

As society has progressed so has the networks of organizations, institutions and agencies which involve themselves in functions relating to fire prevention, control and related emergency services. In 1976, the State Legislature saw fit to create the Maryland Fire-Rescue Education and Training Commission for the purposes of correlating fire-rescue education and training, developing and maintaining an education and training master plan, and developing minimum standards. In February of 1977, the National
Fire Prevention and Control Administration announced its Academy Planning Assistance Program (APAP). Governor Mandel directed that the Commission, an agency of the State Board for Higher Education, make the proper application for the first "Organizational Design Phase" of the APAP Program. Application was made and a grant was awarded to the Commission to develop an organization and a document describing the organizational design of Maryland's fire education and training systems. Through the work of the Legislature and the evolutionary process, this organizational system is in existence. However, the Commission members felt that if the local fire-rescue services were not aware of the present organizational structure then the practical structure would be of limited value. Therefore, the Commission directed that within the resources of the grant, five "Regional Representatives" be hired. It was the responsibility of the representatives to identify on a county-to-county basis those local authorities responsible for fire-rescue services and to orient them to the existing education and training structure, to establish communication with local fire-rescue departments and begin to evaluate their education and training needs and capabilities. Contact was made with all local fire and rescue departments.

Information contained in this publication confirms that Maryland's fire service has an organizational network designed to assure the citizens and fire, rescue and ambulance community of a quality educational and training system.
PART I

GENERAL DESCRIPTION OF ALL FIRE-RESCUE EDUCATION AND TRAINING IN MARYLAND

A. Historical Perspective

B. Need for a Statewide Fire Education and Training Plan

C. Policy Statements Regarding a Statewide Fire and Education Training Plan

D. Goals Statements for Fire Rescue Education and Training

E. Results and Benefits Expected

Through a historical presentation this section identifies and describes in general terms the fire, rescue, and ambulance education and training network as it exists throughout the State. Policy statements which establish general goals and benefits expected were established by the Maryland Fire-Rescue Education and Training Commission and are intended for master planning purposes.
A. HISTORICAL PERSPECTIVE

The State of Maryland has long been proud of its achievements and accomplishments in the field of fire protection, while still being cognizant to a very high degree of the needs and goals to be addressed. There is in existence a structure for the delivery of fire-rescue education and training at the present time and prior to that time there was in existence an informal structure that has been instrumental in promoting the necessities for a more fire-safe environment.

In the special field of fire service education and training, history reveals that an organized approach to the field began in Maryland back in 1928-29. In 1929, the Maryland General Assembly passed a bill that provided for Fire Chiefs and other fire officers down through the grade of Lieutenant to make fire inspections throughout the State, with the exception of Baltimore City. This legislation was requested by the Fire Prevention and Inspection Committee of the Maryland State Firemen's Association (MSFA), which had been organized in 1893. Meanwhile, the insurance interests in Maryland were discussing the feasibility of having firemen make safety inspections. When the day came for the then Governor Ritchie to sign or veto the bill, he held a public hearing. The insurance interests pleaded with the Governor to veto the bill, arguing that the firemen did not have sufficient training to administer an inspection program. The industry at that time was fearful that this piece of legislation would do more harm than good.

Chief C. Howard Shittle of Glyndon, Maryland, appeared as a representative of the MSFA before the Governor and asked that he sign the bill, saying that
it was felt that the firemen could make inspections under the limited scope of the bill and do a commendable job. Despite the pleadings of the insurance lobbyist, the bill was signed. The point, however, had been made that there was a critical need for education and training with Maryland's fire services system.

During the 1929 MSFA convention held in Lonaconing, Maryland, the then President Reese invited Mr. Walter Hough, secretary to the Mayor of Baltimore City, to address the convention. During the address, Mr. Hough mentioned that short courses had been instituted in two other states in 1925 and that these courses were beneficial for firemen in those states, such courses should likewise be good for Maryland. The convention decided at the end of Mr. Hough's presentation that something should be done to provide the fire service with proper training.

Planning went forth within the Association and with the assistance of the Baltimore Fire Commissioners, the Baltimore Fire Department, and representatives of the University of Maryland, groundwork was laid for a Fire College to be held at the University of Maryland.

A plan was formulated whereby an annual Fire College of four to five days would be held at the University of Maryland, at the convenience of the University of Maryland. The first Short Course was held in September 1930. Students were taken from the College Park campus classrooms to the Baltimore Fire Department drill school for fire evolutions during the weeks.

At that point in history of the MSFA, a fireman's training committee was established as a standing committee of that association. It has existed to this day, contributing in many ways to the success and furtherance of
of education and training in the State. From 1930 through 1936, Short Courses were held in the field of firemen'ship. In 1937, the Fire College, as it had been known, became the Fire Service Extension Department, a full fledged department in the College of Engineering. From the Fire Service Extension Department has grown the Maryland Fire and Rescue Institute as it now exists today. The Institute's programs will render instruction and training to over 1700 participants this year throughout the State.

The academy system within the State also has a long tradition of delivering training to fire rescue and ambulance personnel. The Baltimore City Fire School has the longest history of delivering training which dates back to 1921. At the present time, there are in existence four modern training academies within the State, a training bureau, and a training office. The training academies include Anne Arundel Fire Academy, Baltimore County Fire Academy, Baltimore City Fire Academy and Montgomery County Fire/Rescue Training Academy. Prince George's County has a training bureau and Howard County has a training office for the purpose of promoting and delivering training within their departments.

There are three Bachelor of Science degree granting programs established within the State. These include the Urban Studies - Fire Science Program and the Fire Protection Engineering Program as offered by the University of Maryland, and the Fire Protection Technology Program offered at the University of Baltimore. Five community college programs offer certificates and/or Associate of Arts degrees in Fire Science related curriculum. These community colleges include the Community College of Baltimore, Catonsville Community College, Charles County Community College, Montgomery College, and Prince
George's Community College. Hagerstown Community College offers a certificate program in the Emergency Medical Services and the Community College of Baltimore offers an Associate of Arts Degree and a certificate in Emergency Medical Services Program.

The State Fire Marshal's Office was established just prior to the turn of the century. One of the many responsibilities of that office is Public Fire Prevention Education. The Maryland State Forest Service, an arm of the Department of Natural Resources, also has an extensive fire prevention program which includes public education activities. Local and county level departments conduct public education activities directed toward fire prevention. This is in addition to their fire suppression, rescue/ambulance and other related duties.

Local fire departments are responsible for the primary contact with the citizens at the local level. In order to support their fire suppression, prevention, rescue and ambulance activities, departments promote in-service training for their members.

In 1977 the Division of Emergency Medical Services was transferred to the University of Maryland at Baltimore, to be within the Institute of Emergency Medical Services. The Maryland Institute for Emergency Medical Services (MIEMS) has the responsibility for coordinating and promoting education and training for all emergency medical services within the State. MIEMS' responsibilities extend beyond the education and training functions described in this document. However, they do have responsibility for the coordination and standards maintenance in the emergency medical services as relating to the emergency medical technicians and cardiac rescue technicians who operate within the fire, rescue and ambulance services.
The Maryland Fire-Rescue Education and Training Commission in 1976 was established as an agency of the State Board for Higher Education. Its responsibilities include the correlation of all fire and rescue and ambulance education and training. In general, they are responsible for overviewing all fire and rescue related training in cooperation with those providing and delivering services for the purpose of maintaining a modern, viable educational system. This includes the development of master planning activities.
B. NEED FOR A STATEWIDE FIRE EDUCATION AND TRAINING PLAN

Through the process of developing the Statewide Organizational Design for fire, rescue, and ambulance education and training, it became obvious that there is a need for an overall coordinated Master Plan. A more productive educational system could be achieved if formal efforts are made to establish communication between all the elements defined within this formal and informal organizational system. Coordination of all of the education and training efforts would produce a more comprehensive system which would assist all related fire protection personnel throughout the State in carrying out their duties and responsibilities in a safe and successful manner. An identification of programs, priorities, and needs would assist all agencies and institutions involved in getting the most out of their system and in the elimination of unnecessary overlap.
C. POLICY STATEMENTS REGARDING A STATEWIDE FIRE, RESCUE, AND AMBULANCE EDUCATION AND TRAINING PLAN STATED IN TERMS OF OVERALL OBJECTIVES

The overall objective of a Statewide Emergency Services Education and Training Master Plan will be to project the education and training needs in the State of Maryland for fire, rescue, and ambulance services for the next ten years and to set forth the various components that will meet these needs.

Specific Objectives:

1. To use as a basic framework, the existing Statewide Organizational Design (formal and informal) and promote organizational participation and responsibilities in the development and implementation of the Education and Training Master Plan.

2. To prepare a comprehensive inventory of all current fire, rescue, and ambulance services training programs in the State of Maryland, and review all previous local and Statewide plans which have dealt with fire services in the State.

3. To analyze the accessibility of these programs to all career and volunteer fire, rescue, and ambulance services, and related personnel in the State of Maryland.

1 As defined in Sections 92 - 95, Article 77-A, Annotated Code of Maryland, 1977 Supplement. (See pg. 63.)

2 Formal refers to agencies who have mandated responsibilities regarding fire, rescue, and ambulance services education and training. Informal refers to the private and interfacing organizations that exist within the State which have an impact on fire, rescue, and ambulance education and training.
4. To make short and long-range recommendations to develop new programs where needed and increase accessibility to all programs.

5. To delineate areas of responsibility for the development and implementation of all education and training programs utilizing the Statewide Organizational network.

6. To develop procedures that will insure reciprocity within the State of Maryland of fire and rescue education and training programs completed by fire, rescue, and ambulance services, and related personnel.

7. To utilize the Maryland Fire Rescue Advisory Council as a review component for input on all sections of the Plan being developed.
D. GOAL STATEMENTS

The purpose of the following statements is to establish long-range goals for fire, rescue, and ambulance education and training in the State of Maryland.

- That each new member have access to an approved basic level course in his/her field within one year.
- That all drivers of fire apparatus have access to a basic level pumps course.
- That all apparatus drivers have access to an emergency vehicle drivers course.
- That all firefighters have access to a first responders crash injury management course and a valid CPR card.
- That all senior officers have an Officer Training Course available.
- That there should be an emergency services management course available.
- That intermediate and advanced rescue courses be available.
- A formal industrial training program should be available.
- A mechanism should be developed to continually update and modernize the content and technology of fire and rescue educational systems.
- That a modern multi-media training system should be implemented throughout the State.
- That a "Fire Investigators Program" be available.
- That every officer should have a fire prevention course available.
- That every firefighter that could be assigned to a truck company should achieve a truck company operations course within 3 years.
- That every firefighter completing the basic should have an intermediate course available to them within two years.
- That prerequisites should be established and met for each training level.
That all driver operators and officers have a communications course available.

That all ambulance and rescue personnel have the EMT-A Course available.

That where a CRT system is in effect, full training support should be available.

That recertification courses must be available as required.

For each of the Goal-Statements the following four areas will need to be addressed:

1. The number of people to be trained.
2. The number of courses required.
3. The number of instructors required.
4. Equipment and facilities required.

Goals and Objectives for Degree Programs:

- That certificate programs in the Fire Sciences be of high quality and be available in sufficient quantities throughout the State.

- That Associate of Arts Degree Fire Sciences Programs be of high quality and be available in sufficient quantities throughout the State.

- That certificate programs in the Emergency Medical Sciences be of high quality and be available in sufficient quantities throughout the State.

- That Associate of Arts Degree Programs in the Emergency Medical Sciences be of high quality and be available in sufficient quantities throughout the State.

- That Bachelor of Science Degree Programs in the fields of Fire Engineering and Urban Studies -- Fire Science be available in sufficient quantities and at a high quality to fill the needs of society and the students seeking this curriculum within the State of Maryland.

- That a Bachelor of Science Degree Program in the Emergency Medical Services be studied and promoted if it is deemed to be appropriate to the needs of society and the educational community.
That advanced degrees in a Master's Program and Doctor's Program be studied and promoted for the Fire and Emergency Medical Sciences if they are deemed to be appropriate to the needs of society and the educational community.

NOTE: The above-mentioned goals are intended for master planning purposes. Individual universities, colleges, institutions, and academies are and should remain responsible for the development and implementation of their own programs and goals.
E. RESULTS AND BENEFITS EXPECTED

1. An extensive and diverse group of State agencies, organizations, and interest groups impact on the development and delivery of fire and emergency services training in Maryland. The Organizational Design identifies these entities as they now exist; the Statewide Plan will identify their responsibilities in education and training.

2. As a result of identifying the above, a result of the Plan will be to remove the overlap in responsibility that now produces some counterproductive elements in the development and delivery of education and training in the fire and emergency services in Maryland. This is the major benefit sought from carrying out objectives 3, 4, and 5 on pages 8 and 9.

3. The report of the Maryland Governor's Commission on Fire Services released in January, 1975, brought forth the issue of regional training facilities. Three years later, the issue is unresolved. Through the development of a comprehensive Statewide Plan the question of the extent to which Maryland needs regional training facilities, the programs to be offered at these facilities, and the type of facility needed can be identified and dealt with.

4. By utilizing the services of the Maryland Fire Rescue Advisory Council, the Plan will have the participation of the entire spectrum in its development and will result in a much more efficient and acceptable implementation. The Commissioner of Higher Education, who is responsible under Maryland law for the Maryland Fire-Rescue Education and Training
Commission, is positive in his direction that the Council shall review all elements of the Plan before final approval is given by the State Board for Higher Education.

5. A result of the Plan will be to provide the Maryland General Assembly and the Executive Branch of Maryland government a more unified picture of the needs for education and training in fire and emergency services. This will be of measurable benefit in future requests for general fund support from the State.
PART II

PHYSICAL DESIGN OF MARYLAND'S
FIRE, RESCUE, AND AMBULANCE
EDUCATION AND TRAINING SYSTEM

A. State of Maryland's Organization & Flow for Fire-Rescue Education & Training

B. Responsibilities for Emergency Service Education and Training

C. Definition of Components Within the State

This section identifies and defines the components of the education and training system as they now exist. It is intended to give the reader an understanding of major responsibilities and how each entity fits within the system.
STATE OF MARYLAND'S ORGANIZATION & FLOW
FOR FIRE-RESCUE EDUCATION & TRAINING

Local Departments of Fire and Rescue Services
Anne Arundel Fire Academy
Balto. Co. Fire Academy
Balto. City Fire Academy
Montgomery Co. Training Academy
P.G. Co. Training Bureau
Howard Co. Training Off.

340 Local, State & Federal Fire Departments & Supporting Services
Professions delivering fire or rescue related services.

Board of Regents
University of Maryland

University of Maryland

Md. Fire & Rescue Institute - College Park
College Park Training Academy
Southern Md. Regional Training Center
Five Regional Offices

Maryland Institute of Emergency Medical Services

State Board for Higher Education

State Board for Higher Education

Maryland Fire-Rescue Education and Training Commission of the State Board for Higher Education

Coordinating Organizations:
Fire Services
Chief's Assoc., Fire Fighters
Chief's Assoc.
Local Departments of Fire and Rescue Services
Anne Arundel Fire Academy
Balto. Co. Fire Academy
Balto. City Fire Academy
Montgomery Co. Training Academy
P.G. Co. Training Bureau
Howard Co. Training Off.

BOT Md. State Universities and Colleges
University of Baltimore

State Board for Higher Education

BOT Md. State Universities and Colleges
University of Baltimore
### RESPONSIBILITIES FOR EMERGENCY SERVICE EDUCATION & TRAINING

**AGENCY INSTITUTIONS**

<table>
<thead>
<tr>
<th>RESPONSIBILITIES</th>
<th>State Board for Higher Education</th>
<th>Fire-Rescue Education &amp; Training Commission</th>
<th>University of Maryland Fire Rescue Institute</th>
<th>University of Maryland College of Medicine</th>
<th>University of Baltimore Community Colleges</th>
<th>Local Fire-Rescue Departments</th>
<th>REFERENCES</th>
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<tbody>
<tr>
<td>Develop and maintain Master Plan</td>
<td>X /</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>Sec. 30, Sec. 95 (6)</td>
</tr>
<tr>
<td>Adopt rules and regulations</td>
<td>X</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>Sec. 32 (F), Sec. 95 (11)</td>
</tr>
<tr>
<td>Recommend rules and regulations</td>
<td>X</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>Sec. 95 (11)</td>
</tr>
<tr>
<td>Develop minimum uniform standards: Emergency Services instructors users &amp; schools</td>
<td>X</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>Sec. 95 (4)</td>
</tr>
<tr>
<td>Develop emergency/ambulance standards</td>
<td>/</td>
<td>X</td>
<td>/</td>
<td>/</td>
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<td>Sec. 95 (4), Sec. 27 (4)</td>
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<tr>
<td>Coordinate education and training in emergency medical services</td>
<td>/</td>
<td>/</td>
<td>X</td>
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<td>/</td>
<td>Sec. 31, Sec. 95 (2), Sec. 7 (5)</td>
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<tr>
<td>Standardization of course content in schools &amp; institutions</td>
<td>X</td>
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<td>/</td>
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<td>/</td>
<td>/</td>
<td>Sec. 95 (5), Sec. 31</td>
</tr>
<tr>
<td>Reciprocity of College Credits</td>
<td>X</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>Sec. 94 (5)</td>
</tr>
<tr>
<td>Coordinate programs of research &amp; education relating to emergency medical services</td>
<td>/</td>
<td>/</td>
<td>X</td>
<td>/</td>
<td>/</td>
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<td>Sec. 27 AO (5), Sec. 31 (A) (D)</td>
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<td>Coordinate emergency medical training</td>
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<td>/</td>
<td>/</td>
<td>X</td>
<td>/</td>
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<tr>
<td>Correlate training</td>
<td>X</td>
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<td>Prepare &amp; adopt manuals, materials &amp; guidelines for non-degree programs</td>
<td>X</td>
<td>X</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>Sec. 27 AU (5), Local Autonomy</td>
</tr>
<tr>
<td>Provide -classroom education (*Degree)</td>
<td>X* X* X* X* X* /</td>
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<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>Sec. 27 AU (1)</td>
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<tr>
<td>Conduct Instructor Training</td>
<td>X</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>Sec. 27 AU (4), Local Autonomy</td>
</tr>
<tr>
<td>Provide basic training for fire &amp; rescue personnel</td>
<td>X</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>Sec. 27 AE (5), Sec. 27 AU</td>
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<tr>
<td>Program accreditation and/or issuing minimum requirements for certificates, diplomas &amp; degrees by public &amp; private institutions of postsecondary education</td>
<td>X</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>Sec. 32A (B)</td>
</tr>
</tbody>
</table>

**LEGEND**

- X Primary
- / Secondary
- None or not known
The higher education community of Maryland has recently ended three years of intensive self-study and has emerged with a strengthened State level coordinating agency. As one of its responsibilities, the State Board for Higher Education is currently developing a statewide plan for higher education which will be submitted to the Governor and the General Assembly by July 1, 1978. This plan will significantly influence the future of Maryland's postsecondary educational system for the remainder of this century, and will include fire and rescue education and training.

The mandate of the Board extends, therefore, beyond the interests of individual colleges and universities to embrace all aspects of the delivery of educational services to the citizens of the State. Thus, the Board's perspective is required to be broader than those concerns traditionally considered to be important to higher education -- student enrollments, faculty benefits, operating budgets, and capital projects. It must also consider the total environment of educational policy -- demographic trends, such as the changing age structure of the State's population, shifting manpower needs of the State, the evolution of technology, and the relationship of higher education to elementary and secondary education as well as to adult and continuing education.

Taking this broad view, the Board is aware that higher education in Maryland will be faced, in the coming years, with a radically different social environment. Student enrollments which have rocketed upward since 1945, have become more stable. Future growth will be at a slower pace. The total
enrollment in Maryland's higher education institutions tripled from 39,000 in 1955 to 115,000 in 1967. In fall 1976, total enrollment stood at 211,000 almost twice the enrollment of 1967. However, the projected annual rate of growth in enrollment for the next five years is only three to four percent annually.

The financial environment of higher education has changed as a result of the state of the economy. Institutions are being challenged to allocate their resources to the most pressing needs and to manage their existing facilities more efficiently. Inflation has caused the cost per student to increase in current dollars, but to remain constant or decline in real dollars. As a result, improvement in educational quality has been difficult or impossible.

The need exists to evaluate the effectiveness of existing and new programs to determine the extent to which these programs are attaining their objectives. Increased funding will be more and more difficult to justify without an acceptable evaluation system.

During the 1976 legislative year, the assembly became increasingly concerned with identifying critical issues affecting this State's fire and rescue service. As a result, the Maryland Fire Rescue Education and Training Commission was established subject to the authority of the Board, thereby defining fire-rescue education and training as postsecondary education.

The most important activity of the Board in the coming eighteen months will be developing an overall plan setting forth, on both a long-range and short-range basis, the objectives and priorities of postsecondary education. The effect of this plan will be to blueprint the growth and development of public higher education in Maryland for the next ten years.
Enrollment projections for the State indicate small increases until about 1985 and a leveling after that time. Space planning must assure that unused capacity is not created for the mid to late 1980's.

The coming leveling and changing composition of enrollments may have particularly serious implications for liberal arts programs that lack specific links to vocations and professions. New program development must be carefully planned so that programs are of the highest quality and are responsive to emerging student demands.
MARYLAND FIRE-RESCUE EDUCATION AND TRAINING COMMISSION

With the establishment of the state level Fire Rescue Education and Training Commission, Maryland has moved ahead to complete the organizational development of a fire-rescue education and training delivery system. The actions of the Commission over the past eighteen months have been to develop a committee structure which is working in seven initial areas. These committees include:

- Training Standards and Program Review
- Emergency Services Instructors Qualifications
- Federal and Out-of-State Relations
- Emergency Services Budget Review
- Data System Monitoring
- Emergency Care
- Liaison (Refer to Committee Structure & Activities, Appendix B)

The Commission through the work of its Training Standards and Program Review Committee has put into effect its first Training Standard as approved by the State Board for Higher Education. (See Pre-Basic Training Program, Appendix C.)

The Commission is continuing work in its initial priority areas which include the development of minimum educational and training standards for fire rescue, and ambulance personnel; the development of a program of certification and recertification for emergency services instructors and schools; development and operation of a system for collection and analysis for emergency services education and training data; and the development of a system to review proposed national standards or certification.
The Commission is the identified planning entity responsible for this document and is the responsible entity in accordance with its mandate for the development of a fire, rescue, and ambulance education and training master plan.
STATE BOARD FOR COMMUNITY COLLEGES

Seventeen community colleges have been established across the State of Maryland to serve the education, cultural, and economic needs of the citizens. Each of the community colleges is a public two-year institution designed to be responsive to local, regional, and statewide conditions and interest. There are five community colleges that presently offer programs in "Fire Control Technology" and two offer Fire Rescue programs. The State Board for Community Colleges is the state level coordinating agency for these institutions, subject to the authority of Section 32, the State Board for Higher Education law.
The University of Maryland is a publicly-supported land grant institution dedicated primarily to the educational needs of Maryland's residents. The University in all its branches and divisions, is a contemporary, and comprehensive educational institution offering a multiplicity of undergraduate and graduate programs designed to meet the needs of the student and the society.

The University of Maryland offers a Bachelor of Science degree program in "Urban Studies - Fire Science" and another in Fire Protection (started in 1956). There is also a graduate program in the fire science curriculum that leads to a Master of Science degree.

The Department of Emergency Medical Service has recently been transferred by law to be the Maryland Institute for Emergency Medical Services within the University of Maryland Hospital at Baltimore. Its function is to assure continued transport and treatment for the emergency critically ill and injured.

The Maryland Fire Rescue Institute is an entity within the University of Maryland - College Park, which provides informational services and extensive training facilities and services for career and volunteer firefighters throughout the State, and which provides certain basic training for rescue and emergency medical personnel in the State.

The University of Maryland's Fire Rescue Institute has maintained in addition to its full-time faculty and staff a large cadre of qualified "part-time" instructors through the years to service class requests throughout the State of Maryland. This group currently numbers in excess of 230 people and is subdivided into (1) those who teach in the fire and rescue field programs,
(2) those who teach in the fire academy, and (3) those who teach in the emergency medical technician program. These subdivisions are not mutually exclusive and it is common for one instructor to be qualified in two or even all three phases of the Institute's major areas of operation.

Part-time instructors are recruited and selected from both the volunteer and paid fire service. An interested individual makes application with the University for employment. Candidates meeting the minimum qualifications are notified that their applications have been received and that a personnel record has been activated. It is worth noting that applicants are all personally known to one or more faculty members of the Institute due to the close statewide contact with the fire and rescue and ambulance services.

The University of Maryland has conducted instructor training for part-time faculty since 1951. In 1966, a complete revision of the instructor training program was made, with thorough revisions again being made in 1972, 1975 and 1976. A decade of experience with a very strong instructor training program prevails.

Applicants for employment are required to take a battery of three examinations. The examinations are administered periodically at various locations throughout the State or on an individual basis if necessary. Paid and volunteer fire departments and rescue squads may also participate in the process in order to have certified instructors on their roles.

The test battery consists of (1) the Wesman Personnel Classification Test which measures verbal reasoning and arithmetical skills, (2) the Miller Survey of Mechanical Insight which measures ability to discern mechanical relationships and (3) the comprehensive job knowledge test in either fire, rescue or emergency medical subject areas. The job knowledge test requires the
passing score of 70%. In the other two examinations, candidates are required to equal the statewide average established from all who have taken the exam series under the University. With respect to the Wesman PCT, the current statewide average is roughly equivalent to a representative group of Air Force captains. Candidates who do not meet the standards are so informed. Successful applicants are next enrolled in a 40-hour instructor training course taught by a member of the Institute's faculty. This program covers educational philosophy, practical teaching techniques, and practice teaching by each student.

Fire and rescue instructors who successfully complete the instructor training course are further required to complete a minimum of 6-hours of observed practice teaching in the field under an internship program. Emergency medical technician instructors must attend additional professional development institutes on standardized emergency technician skills.

All qualified active instructors are continually monitored by the Institute through supervisory class visits. Continual updating in job skills, teaching techniques, and technical information are carried on through annual instructor short courses and small regional meetings with Institute supervisory personnel.

The Maryland Instructor Training and Certification program has been utilized as a prototype by a number of other states. It has achieved many goals during a period when national standards for certification purposes were not available. Each year improvements have continued to be made in instructor training programs. In 1975 the Maryland General Assembly charged the Maryland Fire and Rescue Institute in Senate Bill 785 with the responsibility of rendering instructor training statewide.
The instructor training program has been instrumental in helping all facets of the fire protection field in the State, whether it be suppression, fire prevention, public education, emergency care, or fire department management. Much remains to be done in a statewide training education movement to enhance classroom instruction for certification purposes under the new national standards presently being developed.

The Maryland Fire Rescue Education and Training Commission is presently building upon the good work of the Institute. Within the coming year, plans to implement prebasic training requirements for firefighters will be in existence, with basic training standards to follow within a year throughout the State. There are plans for a State level qualification of all fire instructors as well as a data retrieval system worked out to keep track of training records. The Institute as well as the State Fire Marshal and other agencies are cooperating in achieving these goals.
STATE DEPARTMENT OF NATURAL RESOURCES AND FEDERAL FOREST SERVICE

Through the Basic Firemen's Training Course, the Maryland Fire and Rescue Institute attempts to familiarize members of local fire departments with the operations of forestry organizations in suppressing brush and forest fires, as well as the nature and scope of the problem these fires present. Material for courses of instruction is reviewed by both the Maryland Department of Natural Resources and the U.S. Forest Service so that some degree of standardization in terms can be achieved. The Maryland Fire Rescue Education and Training Commission will from time to time call upon representatives from both agencies to serve on sub-committees.

The agencies have worked closely for many years with the Institute, including joint participation in educational and training programs such as staff and command courses. Today, the offices are working together under the Rural Development Act.
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OTHER TRAINING JURISDICTIONS

The Maryland Fire and Rescue Institute firemen's field training program consists of a Basic Course and Intermediate-Level series of courses. The Basic Course is a prerequisite to participation in the Intermediate courses. Since the local or county level training academies provide basic level training, the Institute in 1972 inaugurated a program of equivalency testing and accreditation which enables a graduate of a county program to participate in the Intermediate program for credit. At the present time, all of the county training academies are participating in the program.

Certification for Field Courses, which range in length from forty to seventy-eight hours, is based on attendance at approximately 95% of class sessions, attainment of a grade of 70% or higher on a final examination, and a satisfactory evaluation in the area of preparation (homework) and class participation. Final examination in the basic area is both written (75%) and practical (25%). Equivalency examination follows the same proportionate breakdown, but involves a more lengthy examination (two hundred items), since the factor of instructor evaluation is not present.
INSURANCE INDUSTRY

Over the years, the Institute and its predecessor, the Fire Service Extension, the State Fire Marshal and the Maryland fire departments have worked with the insurance industry to improve the training and operation of the fire service in Maryland. The grading schedule used by the Insurance Services Office (formerly the Maryland Insurance Rating Bureau), requires that each fire department, in order to be graded for insurance rating credit, must have among its active members at least ten graduates of the Basic Firemen’s Training Course. In addition, representatives of the Rating Organization have appeared on short course programs to explain the grading schedule requirements for fire flows. Speakers from the Insurance Service Office and its predecessors, the American Insurance Association, and the National Board of Fire Underwriters, have appeared on numerous programs at the Institute.

The Maryland Fire-Rescue Education and Training Commission has set itself up in such a way that it may include insurance representatives in subcommittee work.

SHORT COURSES, SEMINARS, CONFERENCES

The Maryland Fire and Rescue Institute conducts numerous short courses, seminars and conferences throughout the year with attendance by representatives of fire departments, police departments, military organizations, private industry, such State institutions as hospitals, University departments, the Department of Corrections, and others. Specialized short courses and programs in such areas as industrial fire protection, civil defense shelter
management, industrial management planning for disasters, in-service training for fire and police officials responsible for arson investigation, and safety for College of Education students have been conducted over the years. Specialized courses have been conducted through the years for the United States Coast Guard, National Bureau of Standards, Atomic Energy Commission, National Security Agency, National Aeronautics and Space Administration, and other agencies. Work has also been done with the Civil Service Commission in Baltimore City, and with the Maryland State Police in the area of emergency training.

Short course and seminar offerings have been designed to meet specific needs, within the constraints of available budget and staff. Recent offerings such as Sprinkler and Standpipe, Gas Leak Emergencies, and Elevator Rescue have been scheduled for repetitive presentation. Unfortunately, financial restrictions have made full implementation of this practice impossible.

GOVERNOR'S FIRE PREVENTION CONFERENCE

Since 1959, the Maryland Fire and Rescue Institute, formerly the Fire Service Extension, has cooperated with the Fire Marshal's Office in assisting with the Governor's Statewide Fire Prevention Conference. This annual conference has helped to focus attention on the fire problem within the State of Maryland, and has explored means of reducing the loss of life and property through fire prevention.

This year's conference was held on April 25, 1978. Topics included: "Planning for Fire Education," "Sparky Fire Prevention Program for Recreation Centers," "Developing Fire Safety Programs," and "Public Education Resources."
STANDARDIZED OR UNIFORM TRAINING

Statewide training through the courses presented by the Institute has been in progress since 1937. As a result, there has been a far greater standardization in both training and operational methods than exists in other states. Adoption of new and improved techniques and equipment has been facilitated by operation of this program. As an example of the impact of the program, automatic mutual aid running of first alarm assignments is commonplace throughout the State of Maryland and has been for a number of years.

This standardization of training has also increased mobility of the individual fireman with the State. Departments acquiring members who have moved from another area can evaluate the individual's training and experience. The individual has usually been taught most of the methods employed by the department he or she is entering.

LOCAL TRAINING ACADEMIES

As Maryland's population has continued to grow and its metropolitan areas have become larger and more numerous, fire academies have been established in Baltimore, Anne Arundel, Howard, Prince George's and Montgomery Counties, and in municipal fire departments including the City of Baltimore.

This increased need has resulted in the formation of training academies in each of these six jurisdictions. Below is a description of the histories, current activities and future objectives of these academies.
Anne-Arundel County Training Academy - This Academy is a modern, countywide training facility which delivers fire, rescue, and ambulance training to career and volunteer firefighters within the county.

Baltimore City Fire Academy - Baltimore has been in the fire training business since the early 1900's. Prior to 1921, a new engine house/training academy was built, including a drill tower, smoke room and structural building.

Early programs concentrated on the basics of fire fighting, but with the move in 1956 to the Academy's present location on Pulaski Highway, the quality and quantity of the courses have been on the rise.

In fiscal year 1975, the Academy used its auditorium, classrooms, drill tower, structural fire building and flammable liquid pits to train 150 probationary firefighters. Each man received a total of 560 hours of training.

In addition, the facility hosted 731 students for driver training, 284 for company operations training, 1,995 for officer training, 523 for pump operations classes and 43 members of industrial brigades for a course in industrial fire protection.

According to an Academy spokesman, the number one priority for the facility in the next five to ten years is to improve the quality of its officer training programs.

Baltimore County Training Academy - This Academy was founded in the post-war years of the late 1940's. In the early years, the training program concentrated on the basics of fire fighting. The operation was greatly improved in 1953 with the construction of a modern academy facility, including drill tower and structural fire building.
Currently, the Baltimore County program trains career and volunteer firefighters not only in the basics, but in hydraulics, strategy and tactics, pre-fire planning, highrise fire procedures and a number of other timely subjects.

The Academy staff is presently preparing standardized lesson plans for distribution to station officers for company drills. Future goals include video-taped classes that can be viewed individually or in groups at fire stations. Future classes are also being planned in home fire safety inspections and familiarization with the standardized national fire incident report system when it becomes effective.

Howard County Training Office - This office oversees the delivery of fire, rescue, and ambulance training both volunteer and career firefighters throughout the county.
Montgomery County Fire/Rescue Training Academy - Centralized fire training in Montgomery County did not begin until April of 1972. But in the course of five years, the County has established one of the finest training programs in the country.

Using a $5-million academy facility that opened in October 1973, 16 different courses are offered including three levels of officer and three levels of firefighter training.

In 1975, 3,000 career and volunteer firefighters spent 140,000 training hours at the Academy.

In addition to the standard fire academy buildings, the Montgomery County operation includes four-100 seat classrooms, a gymnasium with an exercise room, an apparatus drafting basin, a control tower, a driver training area and a six-fire training building with heat and gas measurements and a simulated basement.

In future years, the Academy hopes to conduct more training in the areas of staff and command and emergency vehicle response and to upgrade the quality of its specialized courses.

Prince George's County Fire Academy - This county began centralized fire training in the 1960's. The program is currently hampered by a lack of facilities, using the academies at the Maryland Fire and Rescue Institute and Anne Arundel County for practical training evolutions.

The course content of the program includes the standard offerings available at most fire training facilities.

Future plans include a combined Fire/Police Academy and a strong effort to increase the frequency of firefighter contact with the Academy plus improvement in the range and quality of subjects covered.
Other Training Academies - Several other jurisdictions maintain fire service training facilities of more modest proportions. Fire departments in the cities of Cumberland, Hagerstown, Salisbury, and the State Fire Department at the Baltimore-Washington Airport Fire Rescue Service Training Office operate and maintain training facilities. These facilities are primarily utilized for training personnel within those departments. In all four jurisdictions, organized training programs are carried out.

UNIVERSITY EDUCATION

The University of Maryland College Park campus offers several programs supporting the field of fire protection/fire science. Two of these are formal programs of study culminating with a baccalaureate degree. The remaining program is formed on an individual basis according to the background and goals of the candidate and culminates in a Master of Arts degree being awarded.

Within the College of Engineering, the program of study includes a core of civil engineering and engineering science courses to provide general engineering background. Specialization courses cover fire protection systems design, fire protection fluids, life safety analysis and fire protection engineering. Electives are usually advanced mathematics, physics and chemistry courses. This is a four year program at the campus with the Bachelor of Science in Fire Protection Engineering being awarded. Applicants to the program should have a solid foundation in physical sciences and mathematics and demonstrate a pattern of academic achievement. The Fire Service Extension Department of the College of Engineering pioneered in the development of this program, which was launched in 1956.

The Institute for Urban Studies offers an undergraduate and a limited graduate program in support of fire science. An applicant to the baccalaureate
program must have an associated degree in fire science from a recognized community college program. On application, sixty hours of credit may be transferred to the University. Sixty additional hours over two years must include upper level fire science courses, mathematics, physics and chemistry and a minimum of twelve hours in behavioral and life sciences, social sciences, arts and humanities. Applicants to this program would include career firefighters, public fire safety officers and entrance level fire service administrators. At the completion of the program, the Bachelor of Science in Urban Studies - Fire Science is awarded.

In recent years, the Institute for Urban Studies has offered, on a limited basis, a program designed for those persons in the fire service field who possess a baccalaureate degree in a discipline other than fire science. The course of study ranges from thirty-six to forty-eight hours and is designed according to the individual's background in urban studies/fire science and goals within the fire science courses, fifteen hours of Urban courses and an average of fifteen hours of Urban Studies graduate level courses. Applicants would normally be senior fire officers or mid-level fire service administrators. The Master of Arts in Urban Studies - Fire Management is awarded upon completion of the program.

Further work is planned to make available a doctorate program in the fire field.

The University of Baltimore, in conjunction with Catonsville Community College, offers a program leading to a Bachelor of Science degree in Fire Protection Technology. To complete the program the students take 63 or 64 hours of work at Catonsville and 60 hours of work at the University of Baltimore.
COMMUNITY COLLEGE PROGRAMS

Currently, there are five community colleges throughout the State with established fire education programs. There are currently two community colleges throughout the State with established emergency medical programs.

The following is a list of those colleges with fire education programs:

3. Catonsville Community College; A.A. Degree in Fire Protection Technology.
4. Prince George's Community College; A.A. Degree in Fire Protection Technology.
5. Charles County Community College; A.A. Degree and Certificate in Fire Control Technology.

The following is a list of those colleges with emergency medical programs:

1. Community College of Baltimore; A.A. Degree and Certificate.
2. Hagerstown Community College; Certificate.

The State Board for Higher Education and the State Board of Community Colleges are responsible for recommending programs and approving programs prior to their initiation. All Fire-Rescue Education and Training program proposals are first sent to the Maryland Fire-Rescue Education and Training Commission for their recommendations.
SCHOLARSHIPS

Scholarship assistance is available for reimbursement of education expenses of firemen through the State Scholarship Board. This aid is available to meet tuition costs for courses in fire science technology. Individuals actively employed as firemen or members of organized volunteer fire departments are eligible. There are also scholarships available to children of deceased firefighters, law enforcement officers, and rescue squad members. The FY 1977 State allocation for such programs was $75,120.

OTHER STATE FIRE AGENCIES

The Maryland Forest Service, an arm of the Department of Natural Resources, is responsible for fire control in the woodlands of the State. The agency also has an extensive fire prevention program which includes public education activities.

The Forest Service closely coordinates its efforts with those of the fire departments throughout the State. All areas of the State are protected by organized fire protection. There is no land area of the State to which fire suppression forces do not respond.

In addition to public education programs, the Forest Service maintains an internal training program for its own employees. This program includes both training upon entry to employment and in-service training. As previously mentioned, the Forest Service cooperates with the Fire and Rescue Institute of the University of Maryland in the training of fire service personnel in prevention and control of natural cover fuel fires.

The State Fire Prevention Commission was established in 1964 by legislative action. The Commission is responsible for promulgation and revision of the State Fire Prevention Code, hearing of appeals in the enforcement of the Code,
appointment of the State Fire Marshal, and resolution of differences of interpretation of the Fire Prevention Code. The Commission is also charged with the responsibility of updating the Fire Prevention Code utilizing public hearings prior to any such action.

Membership on the Commission includes by law three paid or volunteer fire department members, three persons representing industry with fire protection experience and one member representing the public at large. Geographic regions State mandated in the representation scheme.

Members of the Commission are not compensated other than through reimbursement for necessary expenses. Meetings are held at least once every two months.

The State Fire Marshal's Office was established just prior to the turn of the century. In the first quarter of this century, the Office was made a part of the State Insurance Department where it remained until 1964 when it was reestablished as a separate agency. With the advent of the cabinet form of government in 1970, the agency, as well as the State Fire Prevention Commission, was made a part of the Department of Public Safety and Correctional Services. The organizational structure and responsibilities remained the same, however. Through the years, additional duties have been imposed by legislative action.

The State Fire Marshal's Office is responsible for the suppression of arson through fire investigation, enforcement of the State Fire Prevention Code; control of explosives, including bomb disposal responsibilities; public fire prevention education, collection of data relating to fire occurrences in the State and enforcement of electrical safety requirements.
Under Maryland law, local and county fire marshals, where legally designated, also serve as deputy state fire marshals for the purpose of enforcement of the State fire provisions. Several counties and cities have established such programs and the individuals assigned serve in the above mentioned manner.

In addition to investigation and inspection personnel, the State Fire Marshal's Office has a cadre of fire protection engineers who are responsible for review of plans and specifications for construction of buildings to assure compliance with fire safety requirements.

Within the last several years, legislation has been enacted requiring smoke detectors in all new residential occupancies. Approval procedures for sales, installation and repair of devices and systems were also established.

All new high rise buildings are required to be fully protected by automatic sprinklers. Recent legislation will require sprinklers in new hospitals and nursing homes regardless of construction.

All consumer electrical appliances must be tested and listed by a recognized testing laboratory as a prerequisite to sale in the State. This law as well as the others mentioned above are enforced by the State Fire Marshal's Office.

Primary emphasis in recent months in the public education program has been in explosives safety and indoctrination regarding smoke detectors. General fire prevention programs are also held by the Fire Marshal's Office in various areas of the State. The agency assists other State agencies, including the Fire and Rescue Institute, in the carrying out of certain programs.

OTHER PARTICIPATING FIRE SERVICE ORGANIZATIONS

The Maryland State Firemen's Association organized in 1893, has long been active in encouraging firemen's training. The Association was largely
responsible for the establishment of fire service training at the University of Maryland in 1930. The Firemen's Training Committee is the Association's Committee dealing directly with matters relating to education and training. The Association is composed of over 300 volunteer fire companies operating in the State. The Association also has an active fire prevention committee.

The Maryland Fire Chiefs Association is composed of career and volunteer fire chiefs and deputy chiefs from throughout the State. This organization also has a training committee and has actively participated in training programs addressed primarily to chief officers.

Maryland/D.C. Professional Firefighters Association is composed of locals of the International Association of Firefighters AF of L-CIO located in Maryland. This association has long been vitally interested in training for their members.

Maryland Council of Fire and Rescue Academies - This council is made up of the instructors in charge of the county and city fire academies in the State. The group meets periodically in the interest of improved training and standardization.

Maryland Fire Rescue Advisory Council - This council is made up of representatives of various organizations which interface in the delivery of fire and rescue, and ambulance services within the State. This group meets quarterly and serves as a focal point where member organizations can come together to discuss needs relating to the National Fire Prevention and Control Administration. They are identified as an advisory group to the Maryland Fire Rescue Education and Training Commission on Master Planning activities through the Academy Planning Assistance Program.
Three Hundred and Forty Plus or Minus Fire, Rescue and/or Ambulance Departments

There are 340 plus or minus fire, rescue, and/or ambulance departments within the State of Maryland which can supply services to the citizens in the areas of fire suppression, fire prevention, code enforcement, public fire, education, rescue, ambulance, and other. These departments offer internal training to their members.
PART III

DETAILED DESCRIPTION OF MARYLAND'S
FIRE-RESCUE EDUCATION AND TRAINING
SYSTEMS COMPONENTS

A. State Boards and Agencies with Mandated Responsibilities
   1. Annotated Code of Maryland, State Board for Higher Education
      (Organization of Postsecondary Education Flow Chart)
   2. Annotated Code of Maryland, Maryland Fire-Rescue Education and
      Training Commission

B. State Institutions with Mandated Responsibilities

C. University Programs

D. Community College Programs

E. Local Training Academies, Bureau, and Office

This section states in the specific terms of the law the functions and
major responsibilities of State Boards, Agencies, and Institutions which are
involved in the fire, rescue, and ambulance education and training system.
Also found within this section are component descriptions of education and
training programs within this system.
PART III

SECTION A

STATE BOARDS AND AGENCIES WITH MANDATED RESPONSIBILITIES
Section 28. CREATION; COMPOSITION; TERMS; COMPENSATION.

(A) There is a State Board for Higher Education. It consists of eleven (11) persons appointed by the Governor with the advice and consent of the Senate. These persons may not be employed by, or be members of, the governing or advisory boards of, any agency or any institution of postsecondary education in the State subject to the Board's jurisdiction during their term of membership on the Board.

(B) The terms of the members are five years. However, of the initial appointees, three shall receive an initial term of five years; two shall receive an initial term of four years; two shall receive an initial term of three years; two shall receive an initial term of two years; and two shall receive an initial term of one year. Members are eligible for reappointment; however, a person may not serve more than two full five-year terms as a member of the Board.

(C) The members shall not receive compensation for their duties, but their traveling and other necessary expenses incurred in attending the meetings and transacting the business of the Board shall be paid in accordance with the standard travel regulations.

(D) The Governor shall designate one of the members as temporary chairman. Upon its organization, and annually thereafter, the Board shall elect its chairman and other officers.

(E) There is a segmental advisory committee to the Board consisting of nine members appointed by the Governor as follows:

(1) One shall be appointed from among nominees submitted by the Board of Regents of the University of Maryland;

(2) One shall be appointed from among nominees submitted by the Board of Regents of Morgan State University;

(3) Two shall be appointed from among nominees submitted by the Board of Trustees of the State Colleges;
(4) Two shall be appointed from among nominees submitted by the State Board for Community Colleges, at least one of whom shall be the president or member of the board of trustees of a community college;

(5) Two shall be appointed from among the administrative officials or members of the governing boards of the private colleges and universities located in the State; and

(6) One shall be appointed from among the administrative officials or members of the governing boards of the postsecondary vocational-technical institutions located in the State.

The members serve for a term of two years, and are eligible for reappointment. However, a person may not serve more than two full two-year terms. Of the initial appointees, five shall receive an initial term of two years, and four shall receive an initial term of one year.

(F) The Board shall appoint continuing advisory committees representing various groups in the higher education community to make recommendations to the Board on matters affecting them. These groups shall include, but are not limited to, students and faculty.

Section 29. COMMISSIONER; STAFF.

(A) The Board shall appoint a Commissioner of Higher Education and may assign to him such duties as it deems advisable. The Commissioner shall cause the policies of the Board to be carried into effect and is the executive head of the staff to the Board. He shall serve for a term of four years and is eligible for reappointment. He may be removed by the Board for good cause upon charges filed by the Board and after a hearing. The Commissioner shall be a member of the Governor's Executive Council and shall receive the salary provided for in the State budget.

(B) The Board may employ the additional staff provided in the State Budget. The Commissioner and all other employees of the Board are eligible for membership in and shall become members of the Teachers' Retirement System or the State Employees' Retirement System. However, employees holding positions determined by the Board to be professional positions may, in lieu of this membership, become members of an optional retirement program provided for in Section 217 of Article 77.

Section 30. DUTIES OF BOARD; DEVELOPMENT OF PLAN.

(A) The Board, in consultation with the various institutions and agencies concerned with postsecondary education in the State, shall investigate and evaluate on a continuing basis:

(1) The present and future needs throughout the State for postsecondary training and research facilities; and
(2) The present and future capabilities of the various public and private institutions and agencies of postsecondary education in Maryland to meet those needs.

(B) In consultation with the various institutions and agencies concerned with postsecondary education in the State, the Board shall develop an overall plan, setting forth on both a long range and short range basis, the objectives and priorities of postsecondary education and methods and guidelines for achieving and maintaining those objectives and priorities. The plan shall include an identification of the role, function, and mission of each public institution of postsecondary education in the State. The Board shall also develop specific criteria for changing the status, name, or method of governance of these institutions. If and as any of the public institutions of postsecondary education qualify for any of these changes under the criteria adopted by the Board, the Board shall make appropriate recommendations to the Governor and the General Assembly.

(C) The Board shall submit its initial plan to the Governor and the General Assembly by July 1, 1978, and shall submit an annual review of it by each July 1, thereafter. The initial plan and the annual review shall include a report on the status and needs of postsecondary education in Maryland.

Section 31. DUTIES OF BOARD; COORDINATION AND APPROVAL OF PUBLIC PROGRAMS.

(A) The Board shall coordinate the overall growth and development of postsecondary education in Maryland. It shall, to the extent practicable, consult with the agencies and institutions directly affected by its actions and recommendations before taking final action on them.

(B) (1) The following institutions and agencies shall each submit their annual operating budget requests and proposals for capital projects for fiscal year 1979 and thereafter to the Board on or before a date set by the Board:

(I) The Board of Regents of the University of Maryland;

(II) The Board of Regents of Morgan State University;

(III) The Board of Trustees of the State Colleges;

(IV) The Board of Trustees of St. Mary's College of Maryland;

(V) The State Board for Community Colleges;

(VI) The State Scholarship Board;

(VII) The Maryland Higher Education Loan Corporation; and

(2) The Board, in consultation with the Department of Budget and Fiscal Planning shall review the operating budget requests and develop and present to the Governor on or before a date set by him, for his review, a consolidated operating budget for higher education, which shall include the operating budget requests of these institutions and agencies, as well as its own operating budget requests.

(3) The Board may not reduce, increase, or modify the operating budget requests of these institutions and agencies, but shall make its recommendations with respect to them as an accompaniment to its transmission of the consolidated operating budget. The recommendations shall be in terms of the overall plan referred to in Section 30(B) and in fulfillment of Section 31(A).

(C) The Board, in cooperation with the Department of State Planning, shall review proposals for capital projects and improvements desired by the public institutions of higher education in the State, and by private institutions of higher education seeking State funds for such projects and improvements, and shall make recommendations with respect to them to the Governor and the General Assembly. The recommendations shall be in terms of the overall plan referred to in Section 30(B) and in fulfillment of Section 31(A). Proposals for capital projects and improvements for the public colleges shall be submitted to the Board through the State Board for Community Colleges. Nothing in this subsection shall supersede the authority and responsibility of the Department of State Planning under Article 88C.

(D) The Board has the power, with respect to the public institutions of postsecondary education,

(1) To review all proposals for new programs and for substantial expansions, curtailments, or discontinuance of existing programs, and no such proposal shall be implemented without prior approval by the Board;

(2) To review and make recommendations with respect to the continuation, modification, or duplication of existing programs;

(3) To establish general guidelines for tuitions and fees for appropriate consideration by the governing boards of the institutions;

(4) To establish and implement procedures for inter-institutional student and faculty transfers, and to encourage, develop, and implement cooperative programs between and among the public institutions to assure appropriate flexibility throughout the higher education system, including standards for the reciprocal acceptance of credits;

(5) To establish general guidelines for faculty and administrative salaries for appropriate consideration by the governing boards of the institutions,
(6) To study and make recommendations with respect to improving and coordinating student financial assistance programs, and coordinating State and federal programs of support for higher education generally;

(7) To review annually the short range and long range plans, goals, and objectives of the institutions and agencies for consistency with the Board's objectives and priorities as set forth in its plan, and to make recommendations and require modifications to the extent that the plans are inconsistent with the Board's objectives and priorities. With respect to community colleges, recommendations and requirements for modification shall be made only after consideration of the recommendations of the State Board for Community Colleges.

(E) The Board shall review and make recommendations with respect to programs in private institutions of higher education that receive State funds.

Section 32. DUTIES OF BOARD; MISCELLANEOUS.

(A) The Board shall constitute the State Postsecondary Education Commission under Title XII of the Higher Education Act of 1965, as amended from time to time.

(B) The Board shall administer State funds for private higher education institutions and assure that the purposes for which such funds were appropriated are met.

(C) The Board shall develop and implement plans and programs for interstate and regional cooperation in the higher education system, including reciprocity agreements.

(D) The Board may secure, compile, and evaluate data, statistics, and information on any matter within its jurisdiction from persons, agencies, and institutions subject to its authority on forms prescribed by it. It may, through its designated representatives, visit at any reasonable times, and conduct reasonable inspections of any institution subject to its jurisdiction.

(E) The Board shall perform such other duties as are delegated to it in accordance with law.

(F) The Board may adopt rules and regulations to implement its powers and duties.

(G) The status of a community college, State college, or university shall not be changed, as to its name or governance, except upon the recommendation of the State Board for Higher Education. However, in no instance may the status of a community college, State college, or State university be changed without the approval of the General Assembly.
Section 32A. DUTIES OF BOARD; APPROVAL AND ACCREDITATION.

(A) As used in this section "institution of postsecondary education" means a school or other institution that offers an education program within the State for persons 16 years of age or older who have graduated from or left elementary or secondary school. It does not include an adult education, evening high school, or high school equivalence program conducted by a public school system of the State.

(B) The Board shall prescribe minimum requirements for issuing certificates, diplomas, and degrees by the public and private institutions of postsecondary education in Maryland. An institution of postsecondary education may not issue a certificate, diploma, or degree without having first obtained the approval of the Board of the conditions of entrance, scholarship, and residence upon which it is based.

(C) Every institution of postsecondary education, except those operating under a charter granted by the General Assembly, shall obtain a certificate of approval from the Board in order to commence or continue to operate, do business, or function in this State. The Board shall issue a certificate of approval to an applicant if it finds that the facilities, conditions of entrance and scholarship and educational qualifications and standards are adequate and appropriate for the purposes of the institution and the programs, training, and courses to be taught by the institution.

(D) If the Board has reason to believe that an institution of postsecondary education is not in compliance with the conditions or standards upon which its certificate of approval was based, it shall give the institution written notice of its belief. The notice shall specify the alleged deficiencies and require the institution to correct them within 30 days of a period determined by the Board, whichever is greater. Upon application of the institution filed within 20 days of the notice, the Board shall hold a hearing, to determine the matter. The order to correct the deficiencies shall be stayed pending a determination made following the hearing.

(E) If a hearing is not requested, or if, after the hearing, the Board determines that the institution is not in compliance with the conditions or standards, and the institution fails to correct the specified deficiencies within the period set by the Board, the Board may order the institution to cease operations. The order shall take effect 15 days after its issuance.

(F) The institution has the right of judicial review provided by the Administrative Procedure Act. However:

(1) The decision of the Board shall be presumed correct and proper, and the burden of proving otherwise is on the institution; and

(2) The Board shall be a party to the proceeding.
This section does not apply to apprenticeship and on-the-job training programs subject to approval by the apprenticeship and training council.

Section 32B. EDUCATION COORDINATING COMMITTEE CREATED; MEMBERSHIP.

(A) The Education Coordinating Committee is created. It consists of three members of the State Board of Education selected by its president, three members of the State Board for Higher Education selected by its chairman, the State Superintendent of Schools, and the Commissioner of Higher Education.

(B) The committee shall elect its chairman.

Section 32C. DUTIES OF EDUCATION COORDINATING COMMITTEE.

(A) The principal function of the Education Coordinating Committee is to provide a mechanism for coordinating the policies and activities of the State Board of Education and State Superintendent of Schools and the State Board and Commissioner for Higher Education in order that all segments of the State educational system work in harmony.

(B) The Education Coordinating Committee shall, upon referral from the State Board of Elementary and Secondary Education or the State Board for Higher Education, and may, upon its own motion, study, consider, and make recommendations with respect to matters of educational policy or administration which concern or have an effect on both elementary and secondary education and higher education.

(C) All staff assistance to the Council shall be furnished by the State Department of Elementary and Secondary Education and the State Board for Higher Education.

(D) The committee shall meet at least four times each year and may meet more frequently upon call of its chairman.

Section 65. AID TO NONPUBLIC INSTITUTIONS OF HIGHER EDUCATION.

A program of State aid to nonpublic institutions of higher education is created and continued. Eligibility for the aid shall be determined by the State Board for Higher Education in accordance with Section 66 of this Article. The Board shall compute the amount to which each eligible institution is entitled in accordance with Section 67 of this Article and certify that amount to the Comptroller, who shall pay it from appropriations made for the program in accordance with normal budgetary procedures.
Section 66.

In order to qualify for State aid apportionments pursuant to this subtitle, an institution of higher education shall meet each of the following requirements:

(a) It is a nonprofit private college or university which was established in this State prior to July 1, 1970 and has been accredited by the State Board of Higher Education;

(b) It maintains one or more earned degree programs, other than seminarian or theological degrees; culminating in an associate of arts or baccalaureate degree;

(c) It will submit all new programs and major alterations of programs to the State Board for Higher Education for its review and recommendation regarding their initiation.

Section 68.

The State Board for Higher Education shall adopt criteria and procedures, not inconsistent with this subtitle, for the implementation and administration of the aid program provided for by this subtitle, including but not limited to criteria and procedures for the submission of applications for aid under this subtitle, for the verification of full-time equivalent student enrollment by the applicant private institutions of higher education, for the submission of reports or data concerning the utilization of these moneys by such institutions, and for the method and times during the fiscal year for paying the aid provided for by this subtitle. These criteria and procedures shall be subject to the review of the Board of Public Works.
Section 92. DEFINITIONS

(A) In this subtitle the following words have the meanings indicated.

(B) "Commission" means the Maryland Fire-Rescue Education and Training Commission or officers or employees thereof acting on its behalf.

(C) "Emergency services" means the fire, rescue, and ambulance services.

(D) "Instructors" means those persons who teach emergency services education and training.

(E) "Users" means those persons who apply their emergency services education and training in the field.

(F) "Career" means those who are employed full time by a fire, rescue, or ambulance department in the State of Maryland.

(G) "Volunteer" means those who are volunteer members of a fire, rescue, or ambulance department in the State of Maryland.

(H) "Schools" means the Maryland Fire and Rescue Institute, any emergency services training academies operated by any city, county, or municipal governments, any community colleges offering emergency services education and training courses, any public schools offering emergency services education and training courses, and any private or governmental institutions or bodies providing emergency services education and training courses. (1976, ch. 682.)

Section 93. COMMISSION ESTABLISHED; COMPOSITION; APPOINTMENT AND TERMS OF MEMBERS.

There is established in the State Board for Higher Education a Maryland Fire-Rescue Education and Training Commission whose membership shall consist of 11 persons, appointed by the Governor, with the advice and consent of the Senate, qualified by experience and training to deal with the matters which are the responsibilities of the Commission. The term of office of the members first taking office shall expire as designated by the Governor at the time of appointment, two at the end of one year, three at the end of two years, three at the end of three years, and three at the end of four years, each succeeding term shall be for four years, and any member if subject to removal by the Governor at any time for neglect of his duties or for other cause which in the opinion of the Governor makes his continued membership unwise in the public interest. Any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed, shall be appointed for the remainder of the term. Of the members of the Commission there shall be at all times five members who shall be from the volunteer emergency services representing both
instructors and users, three members who shall be instructors from the career emergency services representing the academies, two members who shall be from the career emergency services representing the users, and one member who shall be a representative of the general public. (1976, ch. 682.)

Section 94. CHAIRMAN; VICE-CHAIRMAN; MEETINGS; QUORUM; COMPENSATION AND EXPENSES.

(A) The Governor shall designate the chairman from among the Commission members, who shall serve at the pleasure of the Governor.

(B) The Commission shall annually elect a vice-chairman from among its members. In the absence of the chairman, the vice-chairman shall exercise the powers and duties of the chairman.

(C) The Commission shall hold regular meetings at least once every two months and special meetings at such times as its chairman may determine.

(D) The business of the Commission may not be transacted in the absence of a quorum which shall be six members, one of whom must be the chairman or vice-chairman.

(E) The members of the Commission shall serve without compensation, but shall be reimbursed for their expenses incurred in the official performance of their duties. (1976, ch. 682.)

Section 95. POWERS AND DUTIES GENERALLY.

Subject to the authority of the commissioner of higher education, the Commission is vested with the following powers, authority, responsibilities, and duties:

(1) To maintain minutes of its meetings and such other records as it deems necessary. Staff services shall be provided by the State Board for Higher Education.

(2) To cooperate with and assist schools in the correlation of all emergency services education and training courses and activities.

(3) In cooperation with the University of Maryland, to assist in the development of a program for accreditation of emergency services instructors and schools by the University of Maryland.

(4) In consultation with instructors and users, to develop minimum uniform education and training standards for emergency services instructors, users, and schools.

(5) In cooperation with schools, to assist in helping to achieve standardization of course content and reciprocity of college credits for emergency services education and training.
(6) In cooperation with appropriate government agencies, to develop and maintain a current master plan for emergency services education and training.

(7) To cooperate with the Maryland Fire and Rescue Institute in developing and operating a system for collection and analysis of emergency services education and training data, and exchange of information.

(8) To encourage, promote, and continually review research and development in new emergency services techniques, methods, and procedures.

(9) To propose and encourage improvements in emergency services education and training in all schools.

(10) To cooperate with and review material from other states and federal agencies on matters pertaining to emergency services education and training.

(11) To recommend to the commissioner of higher education, such rules and regulations as may be reasonably necessary or appropriate to accomplish the purposes and objectives of this section.

(12) To review any proposed or adopted national standards or certification in the emergency services and recommend to the commissioner of higher education what actions should be taken regarding such standards or certification.

(13) To prepare an annual report on the Commission's activities to the commissioner of higher education, the Governor and the General Assembly.

(14) To provide a place of storage for the records of the Commission and the original Governor's Commission on Fire Services. (1976, ch. 682.)
PART III
SECTION B
STATE INSTITUTIONS WITH MANDATED RESPONSIBILITIES
Section 27 AF. Definitions.

(a) As used in this subtitle, the following words have the meanings indicated.

(b) "Institute" means the Maryland Fire and Rescue Institute.

(c) "Extension" means the University of Maryland Fire Services Extension.

Section 27 AG. Purpose of subtitle.

The purpose of this subtitle is to provide for an institute within the University of Maryland which will provide informational services and extensive training facilities and services for professional and volunteer fire fighters throughout the State, in cooperation with existing fire-fighting schools or academies in the State, and which will provide certain basic training for rescue and emergency medical personnel in the State, in cooperation with the Department of Health and Mental Hygiene.

Section 27 AH. Creation; transfer of duties, employees, etc.

(a) Maryland Fire and Rescue Institute is created as a part of the University of Maryland.

(b) On July 1, 1975, the duties and services performed by the University of Maryland Fire Services Extension shall be transferred to and become functions of the Maryland Fire and Rescue Institute. The facilities, equipment, assets, and liabilities of the extension shall be transferred to the institute.

(c) On July 1, 1975, the director of the extension shall become director of the institute, and all employees of the extension shall become employees of the institute without any diminution in salary or other benefits.

Section 27 AI. Director.

(a) The director is the administrative head of the institute, and he shall report directly to the chancellor of the University of Maryland.

(b) The director may promulgate rules and regulations necessary to implement the purposes of this subtitle and the duties assigned to the institute by this subtitle.
Section 27 AJ. Duties generally.

In addition to performing the duties and providing the services formerly provided by the extension, the institute shall:

1. Provide classroom education and training for fire fighters and rescue personnel, both at the institute and throughout the State by means of mobile demonstration and classes;

2. Cooperate in existing activities in jurisdictions throughout the State which provide training for fire fighters and rescue personnel;

3. Prepare a plan for the establishment, implementation, and operation of regional centers for the training of fire fighters and rescue personnel;

4. Conduct instructor training;

5. Prepare or adopt fire and rescue training manuals and other training materials;

6. Research and develop new fire and rescue training techniques;

7. Develop and implement industrial fire training courses and other specialized courses in fire fighting;

8. Collect and store statistics and records on fire and rescue education, training, and related data;

9. Develop programs to inform the public of the dangers and difficulties of the tasks performed by professional and volunteer fire fighters throughout the State; and

10. Provide guidelines for instructional material to school systems in the State concerning fire and rescue education.

Section 27 AK. Basic training for rescue and emergency medical personnel.

The institute shall provide basic training for rescue and emergency medical personnel in cooperation with the Division of Emergency Medical Services of the State Department of Health and Mental Hygiene.

Section 27 AL. Funding of institute.

The funding of the institute shall be as provided in the State budget.
In June of 1976 the members of the Regional Center Planning Committee for the Maryland Fire and Rescue Institute presented to the University of Maryland and to the State Legislature a report entitled, *A Plan to Establish and Operate Regional Centers for Training Fire Fighters and Rescue Personnel in the State of Maryland* (Appendix A). This 352-page plan gives a detailed description of the Maryland Fire Rescue Institute as well as describing the direction in which the Institute has been and will be moving in the future.

Note: Appendix A is a separate document that is not found in the body of this Organizational Design, but is to be an addendum. It is a 1976 document and for up-date information, the Maryland Fire and Rescue Institute should be contacted.
ANNOTATED CODE OF MARYLAND
ARTICLE 77A
MARYLAND INSTITUTE FOR EMERGENCY MEDICAL SERVICES

Section 27 AM. Created; headed by director; staff and funds.

(a) The Maryland Institute for Emergency Medical Services is created as an independent unit within the University of Maryland at Baltimore.

(b) The Institute is headed by a director appointed by the board of regents of the University of Maryland in accordance with the appointment process for principal administrative officers. The director shall report and be responsible directly to the Chancellor of the University of Maryland at Baltimore.

(c) Staff and funds for the Institute shall be as provided in the State budget.

Section 27 AN. Transfer of Division of Emergency Medical Service and Maryland Institute for Emergency Medicine.

(a) Effective July 1, 1977, the Division of Emergency Medical Service in the Department of Health and Mental Hygiene is transferred to the University of Maryland at Baltimore, to be within the Institute for Emergency Medical Services.

(b) Effective July 1, 1977, the Maryland Institute for Emergency Medicine in the University of Maryland Hospital is transferred to the University of Maryland at Baltimore, to be within the Institute for Emergency Medical Services.

Section 27 AO. Duties of director.

The director shall:

(1) Coordinate a statewide system of emergency medical services.

(2) Coordinate the five emergency medical service regions in the State.

(3) Coordinate with units of federal, State, and local government the planning and operation of emergency medical services.

(4) Coordinate the training of all personnel in the emergency medical services system and develop the necessary standards for certification.

(5) Coordinate programs of research and education relating to emergency medical services.

(6) Coordinate the development of treatment centers for the treatment of emergency injuries and illnesses.
(7) Coordinate the development of specialty referral centers for resuscitation, treatment, and rehabilitation of the critically ill and injured.

(8) Maintain a close working relationship with the various public and private agencies, health care institutions and universities involved with emergency medical services, along with the regional emergency medical services advisory council and the medical management consultant group.

(9) Receive and administer state and federal budgeted funds pertaining to emergency medical services in Maryland.

(10) Maintain a close working relationship with the Maryland Fire and Rescue Institute to which is assigned the responsibility for basic emergency medical technician training.

(11) Assure continued improvement of transportation for the emergency critically ill and injured patients by supporting the goals and objectives of paid and volunteer systems throughout the State.

Section 27AP. Cooperation with director.

All State agencies and departments shall cooperate with the director in the implementation of the State emergency medical services system created by this subtitle.
PART III
SECTION C
UNIVERSITY PROGRAMS
BACHELOR OF SCIENCE DEGREE PROGRAMS

University of Maryland

College Park, Maryland
URBAN STUDIES - FIRE SCIENCE

A Bachelor of Science Degree Program at the University of Maryland

A Bachelor of Science Degree Program has been established under the College of Engineering to specifically accommodate graduates of Associate Degree Programs in Fire Science.

The Urban Studies - Fire Science Degree Program requires that an individual complete an approved Associate Degree Program in Fire Science. Fire Science Program directors at area Maryland Community Colleges have agreed to provide appropriate arrangements for individuals with a deficiency in this requirement.

The provision of a major field of specialization in Fire Science for a Bachelor of Science Degree in Urban Studies is designed to meet the professional educational needs and objectives of fire service personnel. The broad interdisciplinary nature of the Urban Studies Program will provide public fire safety personnel with a technical background and understanding of urban considerations in public fire safety.

The upper division Fire Science Courses are structured to build on fundamental concepts developed at the community college level. The primary focus of these courses will be on the analysis of current technology in fire protection, urban fire service delivery criteria and research for the improved provision of public fire safety.

The distribution of minimum semester credit hours for the Associate Degree portion of the total requirements is illustrated in Table I. The
minimum requirements for the Urban Studies-Fire Science Program to be completed at the University of Maryland are illustrated in Table II. The combination of minimum requirements illustrated in Table I and II establish the program structure leading to the Bachelor of Science Degree in Urban Studies under the College of Engineering with a specialization field in Fire Science.
TABLE I. ASSOCIATE DEGREE COMPONENTS FOR URBAN STUDIES—FIRE SCIENCE PROGRAM

<table>
<thead>
<tr>
<th>Component</th>
<th>Minimum Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fire Science Field Specialization (See Note 1)</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>Fire Science Courses in the following areas:</strong></td>
<td></td>
</tr>
<tr>
<td>Building Construction (3)</td>
<td></td>
</tr>
<tr>
<td>Hydraulics (3)</td>
<td></td>
</tr>
<tr>
<td>Fire Administration (3)</td>
<td></td>
</tr>
<tr>
<td>Fire Protection Systems (3)</td>
<td></td>
</tr>
<tr>
<td>Fire Prevention (3)</td>
<td></td>
</tr>
<tr>
<td><strong>Basic Sciences and Mathematics (See Note 2)</strong></td>
<td>23</td>
</tr>
<tr>
<td>U. of Md. Course Equivalents in the following areas:</td>
<td></td>
</tr>
<tr>
<td>Mathematics (8)</td>
<td></td>
</tr>
<tr>
<td>Chemistry (4)</td>
<td></td>
</tr>
<tr>
<td>Physics (8)</td>
<td></td>
</tr>
<tr>
<td>Statistics (3)</td>
<td></td>
</tr>
<tr>
<td><strong>General University Requirements (See Note 3)</strong></td>
<td>18</td>
</tr>
<tr>
<td><strong>Electives (See Note 3)</strong></td>
<td>4</td>
</tr>
<tr>
<td><strong>Transfer Credit</strong></td>
<td>60 Hours</td>
</tr>
</tbody>
</table>

TABLE II. UNIVERSITY OF MARYLAND COMPONENTS FOR URBAN STUDIES—FIRE SCIENCE PROGRAM

<table>
<thead>
<tr>
<th>Component</th>
<th>Minimum Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Field of Fire Science Specialization</strong></td>
<td>15</td>
</tr>
<tr>
<td>ETFS 301 - Fire Safety Codes and Standards (3)</td>
<td></td>
</tr>
<tr>
<td>ETFS 302 - Urban Fire Safety Analysis I (3)</td>
<td></td>
</tr>
<tr>
<td>ETFS 303 - Urban Fire Safety Analysis II (3)</td>
<td></td>
</tr>
<tr>
<td>ETFS 402 - Fire Safety Research and Transfer (3)</td>
<td></td>
</tr>
<tr>
<td>ETFS 405 - Technical Problem Analysis (3)</td>
<td></td>
</tr>
<tr>
<td><strong>Physical-Environment Field of Specialization (See Notes 2 &amp; 4)</strong></td>
<td>12</td>
</tr>
<tr>
<td><strong>Urban Studies Specialization (See Note 4)</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>General University Requirements (See Note 3)</strong></td>
<td>12</td>
</tr>
<tr>
<td><strong>General Electives</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>U. of Md. Requirements</strong></td>
<td>60 Hours</td>
</tr>
<tr>
<td><strong>Total Degree Requirements</strong></td>
<td>120 Hours</td>
</tr>
</tbody>
</table>

Note 1: Excess credits in applicable fire science courses at community colleges may be transferred as Area A of the General University Requirements or as free electives.

Note 2: Basic science and mathematics courses should be selected with advisement from the director of the community college fire science program. The sequence of mathematics, chemistry, and physics courses taken in community college will affect the options for physical-environmental courses at the University of Maryland.
Note 3: General University Requirements are satisfied by completing 30 semester hours among each of the following three areas, with a minimum of six and a maximum of 12 credits in an area. A.--Life Sciences and Agriculture; Mathematical, Physical and Engineering Sciences. B.--Behavioral and Social Sciences; Human and Community Resources. C.--Arts and Humanities. Selection of courses to meet these requirements permits course concentrations in public administration, business administration, economics, management information science or occupational safety.

Note 4: Some community college programs may satisfy up to six credit hours of the specialization area requirements.
# FIRE PROTECTION CURRICULUM

## Freshman Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 103, 104</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General University Requirements</td>
<td>6</td>
<td>H</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Physics I</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>MATH 140, 141</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis I, II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ENES 110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction to Engineering Science</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENES 101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>17</td>
<td>17</td>
</tr>
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</table>

## Sophomore Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Semester</th>
</tr>
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<tbody>
<tr>
<td>MATH 240</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General University Requirements</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MATH 241</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linear Algebra or Analysis III</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MATH 246</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differential Equations</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 262, 263</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Physics</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ENES 221</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENES 222</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanics of Materials</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENFP 251</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction to Fire Protection Engineering</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENFP 280</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Fire Problem Analysis</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>17</td>
<td>16</td>
</tr>
</tbody>
</table>

## Junior Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMSC 110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General University Requirements</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENES 240</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary Algorithmic Analysis or Algorithmic Analysis and Computer Programming</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENME 320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermodynamics or</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENCH 295</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical-Process Thermodynamics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENCE 300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Engineering Materials or Materials Science and Engineering</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENME 300</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>17</td>
<td>17</td>
</tr>
</tbody>
</table>

## Senior Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENNU 310</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General University Requirements</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>ENEE 300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Aspects of Nuclear Energy or Principles of Electrical Engineering</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENFP 414</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Safety System Analysis</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENFP 411</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Protection Hazard Analysis</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENFP 415</td>
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<td>Fire Protection System Design II</td>
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<td>Problem Synthesis and Design</td>
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<td>Technical Electives</td>
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<tr>
<td><strong>TOTALS</strong></td>
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</table>

Total Credit Hours: 131

(3 credits of technical electives must be in ENFP)
* Note 1 - Approved Electives may be technical elective courses or any approved upper division courses offered by the University of Maryland.

**Note 2 - Technical Electives must be upper division courses offered in the College of Engineering or Mathematics, Physics, Chemistry, or Computer Science Courses. Technical Electives may be selected from other course offerings with departmental approval.

ADMISSION REQUIREMENTS

Students who desire to enroll in the Fire Protection Engineering Program at the University of Maryland should enroll in an academic program in high school. A good academic achievement record in high school is a basic requirement. Admission from high school is based on evidence indicating the applicant's probable success in the College of Engineering. Applicants are evaluated by two sets of criteria:

1. High school academic record in college preparatory subjects and class standing.

2. The University's predictive index.

Any student desiring to become a Fire Protection Engineer should enroll in all the Mathematics, Physics, and Chemistry that are available in his high school. In addition it is recommended the student take mechanical drawing or drafting when possible.

APPLICATION PROCEDURE

Applications for admission should be obtained from:

The Director, Office of Admissions
University of Maryland
College Park, Maryland 20742

For registration at the fall semester, the initial application must be received by June 1, and all the supporting documents, including the educational records, test scores and medical reports, must be received by July 15.

The final date for the receipt of applications for admission to the spring semester is December 1.

In the initial letter of inquiry to the University of Maryland, the student should state his educational background.

TRANSFER STUDENTS

There is a continuing trend among high school graduates to enter a Junior or Community College program convenient to their homes. Many of these students transfer to a four-year college or university. Students desiring to enter the University of Maryland and Fire Protection Engineering, should consider entering the pre-engineering curriculum at a junior college, and transfer the earned credits with a grade of C or better to the University of Maryland. The faculty of the Fire Protection Curriculum are always pleased to advise a prospective student on the development of a junior college program that would allow for a maximum of transferred credits.

SCHOLARSHIPS AND FINANCIAL AID

Scholarships and financial grants are available to students entering the Fire Protection Curriculum of the College of Engineering. Financial assistance is available to students on the basis of previous academic achievement, financial need, and demonstrated interest in Fire Protection Engineering. The following awards are available to students:

- Anne Arundel County Volunteer Firemen's Association Award
- Alcoa Foundation Scholarship Award
- Baltimore County Volunteer Firemen's Association Award
- Ladies Auxiliary to the Maryland State Firemen's Association Award
- Johnson and Higgins Scholarship Award
- Maryland State Firemen's Association Award
- Prince George's County Volunteer Firemen's Association Award

ADDITIONAL INFORMATION

Individuals desiring additional information relative to the Fire Protection Engineering curriculum and the availability of financial aid or admission procedures may write or phone:

Dr. John L. Bryan
Fire Protection Curriculum
BACHELOR OF SCIENCE -
FIRE PROTECTION TECHNOLOGY

University of Baltimore
Charles at Mt. Royal
Baltimore, Maryland
Bachelor of Science in Fire Protection Technology

The University of Baltimore in conjunction with Catonsville Community College offers a program leading to the degree of Bachelor of Science in Fire Protection Technology. To complete the program the student takes sixty-three or sixty-four hours of work at Catonsville Community College and sixty hours of work at the University of Baltimore. Courses taken at the two schools are listed below:

A. Take at Catonsville Community College

English (Eng. 101, 102 and 151) 9
Che 101 Physical Science 4
Mat 111 Technical Mathematics 3
Psy 101 General Psychology 3
Soc 101 Intro. to Sociology 3
Pos 106 State and Local Governments 3
Man 121 Personnel Management 3

Pe 000 Life Fitness and Enrichment 2
Speech elective 3

Courses in Fire Protection Technology (as prescribed by CCC) 30

Total credit hours at CCC 63 credits

B. Take at U. of B.

General College Math I 3 credits
Business Law I 3
Principles of Accounting I 3
Principles of Accounting II 3
Principles of Economics I 3
Principles of Economics II 3
Statistics 3

Total credits 21 credits

Upper Division Core 21 credits

Concentration

24. Budgeting (0502.415) 3 19,
25. Human Relations in Organizations (0506.371) 3 19
26. Advanced Marketing Management (0509.401) 3 20
27. Managerial Economics (0517.305) 3 Economics I, II
28. Collective Bargaining (0516.467) 3 Man 121

OR

29. Wage & Salary Administration (0515.469) 3 (3) Man 121
30. Fundamentals of Supervision (0515.369) 3 19

Total 18

Total credits taken at U. of B. 60 credits

Total credits in Program 123 credits
PART III

SECTION D

COMMUNITY COLLEGE FIRE CONTROL PROGRAMS AND
COMMUNITY COLLEGE EMERGENCY MEDICAL PROGRAMS
COMMUNITY COLLEGE OF BALTIMORE
Fire Protection Technology (A.A. Degree)

Courses:
FPT 101 Introduction to Fire Protection and Administration
FPT 102 Fundamentals of Fire Suppression
FPT 103 Fire Codes and Ordinances
FPT 201 Fire Service Hydraulics and Water Supply
FPT 202 Fire Prevention and Inspection
FPT 203 Advanced Fire Tactics and Strategy
FPT 204 Hazardous Materials
FPT 205 Fire and Arson Investigation
COMMUNITY COLLEGE OF BALTIMORE
EMERGENCY MEDICAL SERVICES
A.A. & Certificate

Courses:

EMS 100  Introduction to Emergency Medical Service
EMS 101  Emergency Medical Service I (EMT-A)
EMS 103  Emergency Medical Service II (CRT)
EMS 104  Emergency Medical Service CRT Practicum
EMS 104  Advanced Injuries
FPT 101  Introduction to Fire Protection and Administration
FPT 204  Hazardous Materials
CATONSVILLE COMMUNITY COLLEGE

Fire Service Technology (A. A. degree)

Courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
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<tbody>
<tr>
<td>FPT 101</td>
<td>Fire Department Administration</td>
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<td>FPT 106</td>
<td>Fire Ordinances and Codes</td>
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<td>FPT 111</td>
<td>Building Code 5 and Construction</td>
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<td>FPT 112</td>
<td>Fire Suppression Methods</td>
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<td>FPT 116</td>
<td>Fire Prevention</td>
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<td>FPT 121</td>
<td>Hazardous Materials</td>
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<td>FPT 122</td>
<td>Industrial Fire Hazards</td>
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<td>FPT 131</td>
<td>Fire Equipment Hydraulics</td>
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<td>FPT 141</td>
<td>Investigation of Fires</td>
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<tr>
<td>FPT 213</td>
<td>Fire Detection and Suppression Systems</td>
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</tbody>
</table>
CHARLES COUNTY COMMUNITY COLLEGE

Fire Control Technology (A. A. and Certificate)

COURSES:
FST 101 Fire Service Organization and Administration
FST 102 Fundamentals of Fire Prevention
FST 103 Fund. Chemistry and Physics of Fire Prevention
FST 104 Fundamentals of Fire Suppression
FST 105 Building Codes and Construction
FST 201 Fire Investigation
FST 202 Fire Detection and Extinguishing Systems
FST 203 Fire Service Hydraulics and Water Supply
FST 205 Hazardous Materials
FST 207 Advanced Fire Tactics and Strategy
FST 250 Emergency Medical Technician Certified Training
MONTGOMERY JUNIOR COLLEGE (AT ROCKVILLE)

Fire Science (A.A. and Certificate)

Courses:

FS 101 Fire Protection Organization
FS 104 Fire Service Administration
FS 105 Fundamentals of Fire Suppression
FS 112 Building Codes and Construction
FS 201 Fire Prevention and Inspections
FS 205 Hazardous Materials
FS 212 Fire Service Hydraulics and Water Supply
FS 214 Advanced Fire Tactics and Strategy
FS 216 Fire Detection and Suppression Systems
PRINCE GEORGE'S COMMUNITY COLLEGE

Fire Science Technology (A. A. Degree)

Courses:

FITC 151 Fire Service Organization Administration
FITC 153 Building Codes and Construction
FITC 154 Fundamentals of Fire Suppression
FITC 251 Fundamentals of Fire Prevention
FITC 253 Hazardous Materials
FITC 255 Fire Service Hydraulics
FITC 258 Firefighting Strategy and Tactics
FITC 260 Fire Detection and Suppression Systems
## COMMUNITY COLLEGE FIRE CONTROL PROGRAMS

### STUDENT ENROLLMENT - FALL 1977

<table>
<thead>
<tr>
<th>College</th>
<th>Full Time</th>
<th>Part Time</th>
<th>Total</th>
<th>Cert.</th>
<th>AA</th>
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<td>Prince George's Community College</td>
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<td>EMS 101</td>
<td>Emergency Medical Technician - Ambulance</td>
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<tr>
<td>EMS 1Q2</td>
<td>Cardiac Rescue Technician</td>
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<td>BIO 105</td>
<td>Anatomy and Physiology</td>
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<tr>
<td>ET 100</td>
<td>Introduction to Electronics</td>
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<td>PSY 202</td>
<td>Applied Psychology</td>
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<td>ENG 112</td>
<td>Technical Writing</td>
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<tr>
<td>HEALTH</td>
<td>First Aid Instruction</td>
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PART III

SECTION E

LOCAL TRAINING ACADEMIES, BUREAU AND OFFICE
ANNE ARUNDEL COUNTY TRAINING ACADEMY

This facility was developed with the establishment of a fire department headquarters in Anne Arundel County in 1965. Prior to this time, there were 28 volunteer fire departments, all of which had their own training programs.

The Academy consists of a drill tower, structural fire building, pump test site, and flammable liquids and L-P gas pits. Training for volunteer and career firefighters covers basically all the subject areas and topics necessary to accomplish assigned duties. Frequency of training sessions is of concern. For example, instead of having contact with a firefighter once a year, Academy officials would like to have enough classes scheduled to make contact with that firefighter three or four times a year.
Emergency Medical also come under t

2. Major responsibil
budgetary respons

NOTE: Our respon
number one. Regs
following.

Fiscal Year 1977-
Total Budget = $2

Area codes cover:

Travel
Contractual Se
Rents
Utilities
Supplies & Mat
3. Major functions and activities - Including list of programs and/or courses offered.

SEE EXHIBIT I

4. Number of Academy employees - full and part-time. Number of students that interface with the Academy in a year.

The Fire Academy Cadre consist of:

1 - Battalion Chief  2 - Firefighter, Instructors
3 - Captains        3 - Typist
2 - Lieutenants     This also includes E.M.S.
3 - Paramedics      Instructors

In 1977 a total of 15,141 personnel were trained by the Baltimore County Fire Academy.
BALTIMORE COUNTY FIRE DEPARTMENT
FIRE ACADEMY

MASTER PLAN FOR FIRE PROTECTION
TABLE OF CONTENTS

Fire Academy Duties and Responsibilities .................................. 1
Fire Academy Objectives by Priority ........................................... 2
Fire Academy Master Plan by Priority ........................................ 3 - 17
Duties and Responsibilities

1. Implement Academy Master Plan

2. Maintain Training Records

3. Prepare and Administer Fire Academy Budget

4. Maintain Building and Grounds

5. Maintain Baltimore County Fire Department Blood Bank

6. Lend Technical Assistance and Equipment to Department Agencies

7. Order and Maintain Necessary Supplies

8. Order and Maintain Adequate Training Aids

9. Inspect and Approve all Training Vehicles (Dwelling, etc.) for Both Career and Volunteer Training Drills

FIRE ACADEMY OBJECTIVES BY PRIORITY

1. Professional Development of Cadre
2. Maintain Skill Level of Career Personnel
3. Maintain Skill Level of Volunteer Fire/Rescue Personnel
4. Provide and Maintain Recruit Program for Career Personnel
5. Develop and Maintain Training Programs for Inter-Department Divisions
6. Maintenance of Breathing Apparatus for Career Service
7. Conduct Annual Proficiency Test for Fire Department Apparatus
8. Conduct Annual Safety Test for Fire Department Equipment
9. Maintain Liaison Between Other Local, State and Federal Agencies
10. Research and Develop New Ideas to Improve the Fire Service
11. Evaluation of New Tools and Equipment Introduced to the Fire Service
12. Apparatus and Equipment Specifications
13. Develop and Conduct Programs for County Departments' and Outside Organizations (Public Education)
14. Maintain Current Standards for V.A. Eligibility Benefits
I. Professional Development of Fire Academy Cadre
   A. Attend following conferences, meetings and courses
      1. Professional Development Institutes
      2. Fire Department Instructors Conference
      3. Maryland Fire and Rescue Institute
      4. International Society of Fire Service Instructors
      5. Johns Hopkins Applied Physics Lab
      6. Baltimore City Fire Academy
      7. Other Fire Department Classes
   B. Maintain a Library to Include
      1. Updated Reference Material
      2. Related Periodicals

II. Maintain Skill Level of Career Personnel
   A. Fire Suppression
      1. Basic Skills
         a. Fire Hose Handling
         b. Ladders
         c. Ropes and Knots
         d. Breathing Apparatus
         e. Appliances
         f. Extinguishers
         g. Small Tools
         h. Rescue Equipment
         i. Safety Practices
         j. Fire Behavior and Chemistry
      2. Intermediate Skills
         a. Ventilation
b. Salvage/Overhaul

c. Natural Cover Fires

d. Engine/Truck Evolutions

e. Forcible Entry

f. Fire Prevention

g. Arson Investigation Practices

h. Water Supply and Tanker Operations

i. Sprinkler/Standpipe Operations

j. Hydraulics I

k. Breathing Apparatus II

l. In-Service Company Inspection

   (1) Residential

   (2) Mercantile

   (3) Commercial

   (4) Industrial

m. Brush Unit

n. Communications Skills

o. Building Construction (I)

p. Flammable Liquids

3. Advanced Skills

a. Firefighter

   (1) Hi-Rise Procedures

   (2) Bomb Detection

   (3) Radiological Monitoring

   (4) Electrical Hazards

   (5) Elevator Emergencies

   (6) Auto Extrication

   (7) Water Rescue

   (8) Duties and Responsibilities of Truck Company

   (9) Explosive Meter Operations

   (10) Building Construction II
b. Emergency Vehicle/Operator

(1) Engine Driver
   (a) Hydraulics II
   (b) Emergency Driver Skills
   (c) Pump Operator Skills
   (d) Preventive Maintenance
   (e) Familiarization of Equipment Locations

(2) Ladder Truck Driver
   (a) Emergency Driver Skills
   (b) Aerial Operations
   (c) Spotting and Stabilization
   (d) Preventive Maintenance
   (e) Familiarization of Equipment Locations

(3) Air Unit
   (a) Operating Procedure
   (b) Preventive Maintenance

(4) Foam Unit
   (a) Operating Procedure
   (b) Preventive Maintenance

c. Officer

(1) Officership

(2) Tactics
   (a) Pre-Fire Planning
   (b) Size-Up
   (c) Rescue
   (d) Exposure Protection
   (e) Forcible Entry
   (f) Ventilation
   (g) Confine ment
   (h) Extinguishment
   (i) Overhaul
(j) Command Post Operations
(k) Critique
(3) Management and Budget
(4) Hi-Rise Procedures
(5) Marine Operations
(6) Fire Reporting Systems
(7) Hazardous Material
(8) Public Transportation
   (a) Subways
   (b) Railroads
   (c) Airlines
   (d) Ships
(9) Auto Extrication
(10) Bomb Detection
(11) Elevator Emergencies
(12) Water Rescue
(13) Instructor Training Methods
(14) Duties and Responsibilities Truck Company
(15) Life Gun Operations
(16) Public Relations

B. Emergency Medical Services

1. Basic
   a. First Aid
   b. Driver Qualifications (Ambulance)
   c. Cardiopulmonary Resuscitation
   d. Premature Kit
   e. Emergency Medical Resources Center Radio Procedure
   f. Emergency Life Saving Techniques

2. Intermediate
(1) E.C.I.
(2) E.C. II
   (a) Auto - Extrication
   (b) Child Birth
   (c) In Hospital Training (20 Hrs.)
3. Advanced (Paramedic)
   a. Intravenous Therapy Certification
      (1) Venipuncture
   b. Cardiac Rescue Technician Certification
   c. Intubation
   d. Triage Procedure and Operations
   e. Instructor Training
      (1) First Aid
      (2) Cardiopulmonary Resuscitation
      (3) Emergency Medical Technician
      (4) Intravenous Therapy
      (5) Cardiac Rescue Technician
   f. Professional Development Institute

III. Maintain Skill Level for Volunteer Personnel

A. Maintain Membership on Training Committee of Baltimore County Volunteer Firemens Association
B. Maintain Liaison with Company Training Officer
C. Fire Suppression
   1. Basic Skills
      a. Fire Hose Handling
      b. Ladders
      c. Ropes and Knots
      d. Breathing Apparatus I
      e. Appliances
      f. Extinguishers
2. Intermediate Skills
a. Ventilation
b. Salvage/Overhaul
c. Natural Cover Fires
d. Engine/Truck Evolutions
e. Forcible Entry
f. Fire Prevention
g. Arson Investigation Practices
h. Water Supply and Tanker Operations
i. Sprinkler/Standpipe Operations
j. Hydraulics I
k. Breathing Apparatus II
l. In-Service Company Inspections
   (1) Residential
   (2) Mercantile
   (3) Commercial
   (4) Industrial
m. Brush Unit
n. Communications Skills
o. Building Construction I
p. Flammable Liquids

3. Advanced Skills
a. Firefighter
   (1) Hi-Rise Procedures
   (2) Bomb Detection
   (3) Radiological Monitoring
   (4) Electrical Hazards
   (5) Elevator Emergencies
(6) Auto Extrication

(7) Water Rescue

(8) Duties and Responsibilities of Truck Company

(9) Building Construction II

b. Emergency Vehicle Operator

(1) Engine Driver
   (a) Hydraulics II
   (b) Emergency Driver Skills
   (c) Pump Operator Skills
   (d) Preventive Maintenance
   (e) Defensive Driving

(2) Ladder Truck Driver
   (a) Aerial Operations
   (b) Emergency Driver Skills
   (c) Spotting and Stabilization Truck
   (d) Preventive Maintenance
   (e) Defensive Driving

c. Officer

(1) Officership

(2) Tactics
   (a) Pre-fire Planning
   (b) Size-up
   (c) Rescue
   (d) Exposure Protection
   (e) Forcible Entry
   (f) Ventilation
   (g) Confinement
   (h) Extinguishment
   (i) Overhaul
   (j) Command Post Operations
   (k) Critique
(3) Management and Budget
(4) Hi-Rise Procedures
(5) Marine Operation
(6) Fire Reporting Systems
(7) Hazardous Material
(8) Public Transportation
   (a) Subways
   (b) Railroads
   (c) Airlines
   (d) Ships
(9) Auto Extrication
(10) Bomb Detection
(11) Elevator Emergencies
(12) Water Rescue
(13) Instructor Training Methods
(14) Duties and Responsibilities of Truck Company
(15) Life Gun Operations
(16) Public Relations

D. Emergency Medical Services

1. Basic
   a. First Aid
   b. Driver Qualifications (Ambulance)
   c. Cardio-Pulmonary Resuscitation
   d. Premature Kit
   e. Emergency Medical Resources Center Radio Procedure
   f. Emergency Lifesaving Techniques

2. Intermediate
   a. Advanced First Aid
   b. Emergency Medical Technician
      (1) E. C. I
      (2) E. C. II
(a) Auto Extrication
(b) Childbirth
(c) In-hospital Training (20 Hours)

3. Advanced (Paramedic)
   a. Intravenous Therapy Certification
      (1) Venipuncture
   b. Cardiac Rescue Technician Certification
   c. Intubation
   d. Triage Procedure and Operations
   e. Instructor Training
      (1) First Aid
      (2) Cardiopulmonary Resuscitation
      (3) Emergency Medical Technician
      (4) Intravenous Therapy
      (5) Cardiac Rescue Technician
   f. Professional Development Institute

IV. Provide and Maintain Recruit Program for Career Personnel
   (15 weeks 600 Hrs.)

A. Recruit Program (Contents)
   1. Introduction (Baltimore Co. Government)
   2. Emergency Medical Technician Certification
   3. Definitions and Terminology
   4. Ventilation
   5. Hose Handling
   6. Small Tools
   7. Ropes and Knots
   8. Ladders
   9. Radiological Monitoring
   10. Fire Prevention
   11. Arson
   12. Communication Procedures
   13. Grievance Policy and Procedures
14. Bomb Detection (Basic)
16. Elevator Emergencies
17. Gas and Electric
18. Defensive Driving
19. Breathing Apparatus I and II
20. Fire Chemistry and Extinguishers
21. Salvage
22. Engine Evolutions and House Burnings
23. Truck Company Evolutions
24. Jeep Class and Natural Cover Fires
25. Sprinkler and Standpipe Operations
26. Hydrants
27. Hydraulics I
28. Civil Disturbances
29. Rescue Equipment
30. Public Relations

B. Evaluation
1. Quizzes (weekly)
2. Mid-Term and Final Examination
   (a) Written
   (b) Practical
3. EMT Certification
   a. Written
   b. Practical
4. Instructor Evaluation
5. Six and Eleven Month Probationary Examinations
   a. Written
   b. Practical
   c. Physical Fitness
V. Develop and Maintain Training Programs for Inter-Department Division:

A. Communications
   1. First Aid
   2. Communications Recruit Operators Course
   3. Familiarization of Fire-Department Terminology
      a. Suppression
      b. Emergency Medical Service
   4. Defensive Driving

B. Repair Shop
   1. First Aid
   2. Familiarization of Mechanics with Operations of New Apparatus
   3. Familiarization of New Shop Personnel with Existing Equipment
   4. Qualify Shop Personnel as per Motor Vehicle Administration Class A Driver Requirements
   5. Defensive Driving

C. Fire Prevention
   1. First Aid
   2. Building Construction
   3. Code Application
   4. Defensive Driving
   5. Explosive Devices (Bombs Etc.)
   6. Public Relations
   7. Explosive Meter Operations

D. Arson
   1. Instruction in Arson Detection
   2. First Aid
   3. Defensive Driving
   4. Explosive Devices
   5. Public Relations
   6. Explosive Meter Operations
E. Administration

Uniform Personnel
a. First Aid
b. Business Management
c. Defensive Driving

2. Civilian Personnel
a. First Aid
b. Defensive Driving
c. Fire Department Orientation

VI. Maintenance of Breathing Apparatus for Career Service
A. Annual Preventive Maintenance Program
B. Modification to Maintain Standards
C. Perform all Necessary Maintenance
D. Monitor Hydrostatic Testing Records of all air bottles

VII. Conduct Annual Proficiency Test for Fire Department Apparatus
A. Conduct Annual Pump Test on Engines
B. Conduct Annual Pump Test on Ladder Trucks
C. Conduct Annual Truck Company Aerial Stress Test

VIII. Conduct Annual Safety Test for Fire Department Equipment
A. Schedule Testing of Electrical Gloves and Wire Cutters
B. Conduct Ground Ladders Stress Test
C. Conduct Testing of Extinguisher Charges
D. Conduct Testing of Meushaw
E. Conduct Annual Hose Test

IX. Maintain Liaison Between Other Local, State and Federal Agencies.
A. Purposes for which Liaison is Maintained
1. To participate in the Development of Liniform Professional Standards for the Fire Service and Emergency Medical Servi
2. To Provide the means for continuous upgrading of the Fire Service and Emergency Medical Services
3. To promote the important of the Role of the Fire Academies in the total Fire and Emergency Medical Service Organizati
1. Suppression Organizations
   (a) National Fire Prevention and Control Administration
   (b) Maryland Fire and Rescue Institute
   (c) Maryland Council Fire and Rescue Academies
   (d) Legislative Liaison Representative
   (e) Maryland State Volunteer Firemen's Association
   (f) Baltimore County Volunteer Firemen's Association
   (g) Maryland State Fire Marshals Office
   (h) Baltimore County Police Department
   (i) Maryland State Police

2. Emergency Medical Service
   (a) Baltimore County Medical Society
   (b) Baltimore City Medical Society
   (c) Maryland Fire and Rescue Institute
   (d) International First Aid and Rescue Association
   (e) Emergency Medical Services Technical Advisory Council
   (f) Emergency Medical Services Council
   (g) Baltimore County Volunteer Ambulance Association
   (h) Maryland Council Fire and Rescue Academies
   (i) Baltimore County Police Department
   (j) Maryland State Police Department
   (k) Maryland Hospital Council

X. Research and Develop New Ideas to Improve The Fire Service
   A. Suppression
      1. Visit other jurisdictions to exchange ideas
      2. Test and Evaluate Suggestions for Field Personnel
      3. Attend:
         a. Seminars
         b. Fire Department Demonstrations
         c. Lectures
         d. Conventions
B. **Emergency Medical Services**

1. Visit Other Jurisdictions to Exchange Ideas
2. Test and Evaluate Suggestions
3. Attend:
   a. Seminars
   b. Fire Department Demonstrations
   c. Lectures
   d. Conventions

XI. **Evaluation of New Tools and Equipment Introduced to the Fire Service**

A. Determine the Adaptability to Baltimore County Operations
B. Test and Evaluate Manufacturers Specifications
C. Initiate Pilot Programs
D. Coordinate and Evaluate Field Test

XII. **Apparatus and Equipment Specifications**

A. Assist Administration in the Writing of Equipment and Apparatus Specifications

XIII. **Develop and Conduct Programs for County Departments and Outside Organizations (Public Education)**

A. Suppression
   
   County Agencies
   
   a. Police Department
      (1) Rescue Class
      (2) Recruit Orientation
         (Police Responsibilities and the Fire Department)
      (3) Breathing Apparatus
      (4) Rope and Ladder Class
   
   b. Highway and Sanitation Divisions
      (1) Defensive Driving

2. Outside Organizations
   
   a. Fire Brigade Training
      (1) Institutional
      (2) Industrial
   
   b. Civic Organizations
B. Emergency Medical Service

1. County Agencies
   a. Police Department
      (1) Ambulance Orientation
      (2) Emergency Medical Technician Certification
   b. Health Department
      (1) Public Health Nurses
      (2) School Nurses
   c. Highway Department
      (1) First Aid

2. Outside Organizations
   a. Civic Organizations
   b. Institutions
   c. Nursing Homes
   d. Hospitals

XIV. Maintain Current Standards for Veterans Eligibility Benefits

   A. Maintain State Certification Standards
   B. Obtain Certification of New Courses
   C. Validate Credit Hours
   D. Maintain All Records
The School of Instructions was officially created in 1921 at Engine Company No. 36, 2249 Edmondson Avenue. It continued operation here until 1957, when the present location, 6720 Pulaski Highway, was dedicated.

The Fire Academy is responsible for planning and scheduling training, retraining and in-service training of all Fire Department personnel. The Staff consists of one Battalion Chief, four Captains, four Lieutenants, two Fire Fighters and one Senior Clerk-Typist. All are permanently assigned to carry out this responsibility.

Major functions of the Academy are:

**Basic Training** — When someone is appointed as a Fire Fighter, they are immediately subjected to this course for seventy (70) days. This course consists of such things as, basic ladder raises, hose rolling, protective clothing, to E.M.T. training, to driving and operating apparatus. All members are E.M.T.'s upon completion of this course.

**Pump Operators** — Once per year a class is held for them on their duties and responsibilities.

**Officers' School** — Five (5) times per year they are brought to the Academy for instructions on current subjects or methods. As an example of this year's classes:

- M.T.A. Subway
- Project Smoke
- Ships
- Hazardous Materials
- Training and Teaching

**Retraining** — During Fiscal Year '77, all Units and shifts were contacted at least two (2) times by Academy personnel. Various fireground problems and evolutions were conducted at the Academy and Ship Familiarization Tours at Bethlehem Steel Shipyard were conducted. Cardiopulmonary Resuscitation (CPR) course was conducted throughout the Department and 1354 members were certified.
In-service Training - These 1½-hour periods are conducted weekly in station by the Unit Officer, with the subject schedule by the Academy. The Unit Officer also conducts a weekly 1½ hour training period with the apparatus and/or equipment.

Officer Training - All newly promoted Lieutenants receive an eight (8) day training program. Two days working in the Fire Prevention Bureau and Fire Investigation Bureau, one day at Communications and three days at the Academy. Thus they are exposed to different areas of their new responsibility and while at the Academy, are given a mini method of instructing course.

Fire Brigade Training - In conjunction with the Fire Prevention Bureau, the use of hose streams and fire extinguishers is conducted at the Academy for local industrial organizations.

TOTAL ATTENDANCE FISCAL YEAR 77:

<table>
<thead>
<tr>
<th>Training</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Training</td>
<td>38</td>
</tr>
<tr>
<td>Pump Operator's School</td>
<td>168</td>
</tr>
<tr>
<td>Officer's School</td>
<td>1963 (394 x 5)</td>
</tr>
<tr>
<td>Retraining</td>
<td>2536</td>
</tr>
<tr>
<td>Officer Training</td>
<td>19</td>
</tr>
<tr>
<td>Fire Brigade</td>
<td>42</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4771</td>
</tr>
</tbody>
</table>
ANNUAL REPORT FOR FIRE ACADEMY — JULY 1, 1976 THRU JUNE 30, 1977

BASIC TRAINING

A Basic Training Course totaling 65 working days was given to 38 Probationary Fire Fighters upon appointment to the Fire Department.

Training consists of the basic fundamentals of fire fighting and rescue, radiological training, E.M.T. training and related subjects dealing with the Fire Service.


All Probationary Fire Fighters passed Emergency Medical Technician training and are State certified.

COMPANY TRAINING

Outside Instructions

Evolutions and Fire Fighting

Units performed various fireground problems and evolutions, using the Fire Training Building and Drill Yard.

Members attending — 1085

Ship Familiarization at Bethlehem Steel Shipyard

Members attending — 97

Inside Instructions

Units were instructed in Cardiopulmonary Resuscitation (CPR).

Members attending — 1354

Driving Instructions

Members attending were given vision and reaction tests, issued new Fire Department license and received a class on Defensive Driving of Fire Apparatus.
Driving Instructions - continued

Members attending Defensive Driving Course - 44

Ambulance personnel attending - 46

Members' license upgraded to Class "A" - 38

Eye tests - 100

Fire Department Permits issued - 40

Additional personnel given additional training - 10

APPARATUS TESTING

49 First Line Pumper and 17 Second Line Pumpers, 30 First Line Trucks and 8 Second Line Trucks were tested, in accordance with the requirements of the American Insurance Association.

Acceptance Test performed on new apparatus, Engine 5 and Truck 11.

HOSE TESTED

During the month of April, 1977, all hose in service was tested at 250 psi for 5 minutes at the Fire Academy.

3" - 18,650
2 1/2" - 114,350
1 1/2" - 38,300
Booster - 13,750

SCHOOL FOR OFFICIALS AND OFFICERS

A total of 1986 members of the Fire Department attended 15 training sessions from November, 1976 thru March, 1977.

A total of 168 members attended training sessions in May, 1977.

Subjects: Hose Lays, Friction Loss Calculations and Practical Application.

OFFICER TRAINING PROGRAM

The Officer Training program conducted for 19 newly promoted Lieutenants.

INDUSTRIAL FIRE BRIGADE TRAINING

Members of Fire Brigades from local industrial organisations attended a course in handling of fire extinguishers and large hose streams.

Members attending - 42

SCHOOL CHILDREN TOURS

680 pupils and teachers visited the Fire Academy and were given talks on "Fire Prevention in the Home," and "Hazards of False Alarms."

PERSONNEL CHANGES

The following changes were made by Fire Academy personnel:

Promotion and assignment effective January 5, 1977:

Captain Dennis L. Widdeskind

Transferred: Captain Walter C. Fox from Fire Academy

INSTRUCTIONS

All instructions given at the Fire Academy are under the supervision of Battalion Chief No. 34, Mr. Thomas J. Baginski and conform to Fire Department Rules and Regulations and material and related subjects as set forth by the National Fire Protection Association and the American Insurance Association, with the approval of Mr. Thomas J. Burke, Chief of Fire Department and Mr. Edward J. Callahan, Deputy Chief No. 7.
Introduction

The Montgomery County Fire/Rescue Training Academy is located on Maryland State Route #28 just north of the city of Rockville, Md. It is an ultra-modern facility consisting of an Academic Building, Fire Training Building, Observation and Command Tower, Apparatus Room and Driver Training Facility.

The Training Academy provides training to all Fire and Rescue Departments and personnel within Montgomery County, Md., according to the standards and perceived needs of the Montgomery County Fire Board. The Montgomery County Fire Board is a delegate body consisting of the Chief of Department and one other elected representative from each of the sixteen individual fire departments and two rescue squads. It is a primary operational and administrative policy making authority for all Montgomery County Fire/Rescue Services. The Training Academy facilities and personnel are controlled by the Department of Fire/Rescue Services which is a department of the Montgomery County Government. The Director and Chief of this Department serves as the Executive Secretary to the Montgomery County Fire Board.

Major Programs and Responsibilities

The primary mission is to provide all formal course training in fire fighting, rescue and emergency medical areas for 650 career and approximately 800 volunteer personnel. Our training programs and courses address all the essential knowledge and skill areas essential to the proper functioning of an efficient fire and rescue service from recruit through Officer level as listed below.

<table>
<thead>
<tr>
<th>Course/Program</th>
<th>Content</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Fighter I</td>
<td>Basic skill level fire fighting course designed around the NFPA 1001 standard.</td>
<td>90 hrs.</td>
</tr>
<tr>
<td>Fire Fighting Techniques - II</td>
<td>Intermediate skill level fire fighting course designed around the NFPA 1001 standard.</td>
<td>90 hrs.</td>
</tr>
<tr>
<td>Fire Fighter III</td>
<td>Technical knowledge and advanced skill level course based upon the NFPA 1001 standard.</td>
<td>60 hrs.</td>
</tr>
<tr>
<td>Pumps &amp; Hydraulics</td>
<td>Course covers both technical and practical knowledge skills necessary to efficiently operate fire department pumpers.</td>
<td>30 hrs.</td>
</tr>
</tbody>
</table>
Emergency Vehicle Drivers Course

Course covers the practical driving, legal and attitude skills necessary to efficiently and safely drive emergency vehicles.

Hazardous Materials

Provides the knowledge and skills necessary to handle the varied very specialized materials which the fire fighter must be prepared to control.

Emergency Medical Technician-Ambulance

Basic and intermediate knowledge and skill course in emergency care of the sick and injured.

EMT-A Refresher

Review and refresher course required every three years to maintain certification as EMT-A.

Rescue Level B

Specialized rescue problems course covering cave-ins, building collapse, rescue from heights, water rescue, etc.

Paramedic (Md. State Certified)

Prepares individual to provide definitive medical care of an advanced nature in communication with a physician.

Paramedic Continuing Education

Mandatory on going program required of Paramedics to maintain certification.

CPR Instructor

Course to prepare individual to teach Cardio-pulmonary resuscitation.

Advanced Fire Prevention Techniques

Course in content and enforcement of Montgomery County Fire Prevention Code.

Officership I

Course in pre-planning and fire incident strategy and tactics and some leadership training.

Tactics

Course in basic fire ground control, size-up, and tactical procedures.

Officer Continuing Education

2 or 3 hour session on varying management oriented subjects held periodically.
In addition to the above courses and programs, other training is provided by our agency to other county agencies, such as Police and Corrections, to private enterprises, and to citizens groups.

Other responsibilities that are assigned to the Training Academy and its staff are as follows:

1. In cooperation with the office of Employment of the Montgomery County Government, we are assigned a major responsibility towards the recruitment of all career personnel.
2. Promotional examinations.
3. Testing and evaluation of new equipment and evolutions.
4. Performance evaluations of career fire fighters.
5. Serve as staff to various Montgomery County Fire Board Sub-Committees.

Staff and Funding

The staff and the Montgomery County Fire/Rescue Training Academy consist of a training officer, two full-time instructors, ten part-time instructors and a full time maintenance technician. In addition to these personnel, field fire fighters and fire officers are used, where qualified to assist us with our programs. MFRI State Instructors are also utilized in our EMT-A program in coordination with our Emergency Medical Services Section.

Annual funding from the Montgomery County Government is approximately 120,000 dollars. An additional 6,000 to 10,000 dollars is received from the Montgomery County School Board to fund instructional time to conduct a County High School Cadet Program.
## Calendar Year 1977 Training Statistics

<table>
<thead>
<tr>
<th>Course/Program</th>
<th>Class Hours</th>
<th>Number of Students</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Fighter I</td>
<td>870</td>
<td>253</td>
<td>23,820</td>
</tr>
<tr>
<td>Fire Fighting Techniques - II</td>
<td>510</td>
<td>91</td>
<td>7,422</td>
</tr>
<tr>
<td>Fire Fighter III</td>
<td>120</td>
<td>59</td>
<td>3,540</td>
</tr>
<tr>
<td>Emergency Vehicle Drivers</td>
<td>42</td>
<td>32</td>
<td>624</td>
</tr>
<tr>
<td>Pumps and Hydraulics</td>
<td>90</td>
<td>75</td>
<td>2,331</td>
</tr>
<tr>
<td>Aerial Operation</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hazardous Materials</td>
<td>30</td>
<td>25</td>
<td>675</td>
</tr>
<tr>
<td>Fire/Rescue Officers Continuing Education</td>
<td>12</td>
<td>216</td>
<td>648</td>
</tr>
<tr>
<td>Officership I</td>
<td>21</td>
<td>32</td>
<td>684</td>
</tr>
<tr>
<td>In-Service Training</td>
<td>346</td>
<td>389</td>
<td>6,864</td>
</tr>
<tr>
<td>In-Service Instructor</td>
<td>37</td>
<td>41</td>
<td>214</td>
</tr>
<tr>
<td>Radiological Monitoring</td>
<td>36</td>
<td>181</td>
<td>1,012</td>
</tr>
<tr>
<td>Supervisory Practices</td>
<td>24</td>
<td>4</td>
<td>96</td>
</tr>
<tr>
<td>Rescue Level B</td>
<td>30</td>
<td>23</td>
<td>690</td>
</tr>
<tr>
<td>Emergency Medical Technician</td>
<td>893</td>
<td>226</td>
<td>21,306</td>
</tr>
<tr>
<td>EMT - Refresher</td>
<td>162</td>
<td>242</td>
<td>7,461</td>
</tr>
<tr>
<td>Cardio-Pulmonary Resuscitation</td>
<td>96</td>
<td>406</td>
<td>2,972</td>
</tr>
<tr>
<td>CPR Instructor</td>
<td>64</td>
<td>107</td>
<td>1,446</td>
</tr>
<tr>
<td>Paramedic</td>
<td>256</td>
<td>83</td>
<td>3,907</td>
</tr>
<tr>
<td>Paramedic Continuing Education</td>
<td>32</td>
<td>256</td>
<td>1,935</td>
</tr>
<tr>
<td>Smoke Detectors</td>
<td>2</td>
<td>62</td>
<td>124</td>
</tr>
<tr>
<td>Nursing Home and Hospital Fire Safety</td>
<td>16</td>
<td>74</td>
<td>592</td>
</tr>
</tbody>
</table>

---

**Note:** The data represents the number of students trained in each course or program.
### Course/Program

<table>
<thead>
<tr>
<th>Course/Program</th>
<th>Class Hours</th>
<th>Number of Students</th>
<th>Student Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDE. Siren Deactivation</td>
<td>1</td>
<td>71</td>
<td>71</td>
</tr>
</tbody>
</table>

**Sub-totals**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,690</td>
<td>2,948</td>
<td>87,934</td>
</tr>
</tbody>
</table>

In addition to the above training, the following programs were presented in cooperation with other State or Federal Agencies.

**National Fire Prevention and Control Administration**

<table>
<thead>
<tr>
<th>Program</th>
<th>Class Hours</th>
<th>Number of Students</th>
<th>Student Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor Training</td>
<td>40</td>
<td>25</td>
<td>1,000</td>
</tr>
<tr>
<td>Home Fire Safety</td>
<td>3</td>
<td>20</td>
<td>60</td>
</tr>
</tbody>
</table>

**National Fire Protection Association**

<table>
<thead>
<tr>
<th>Program</th>
<th>Class Hours</th>
<th>Number of Students</th>
<th>Student Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Safety Code</td>
<td>40</td>
<td>32</td>
<td>1,280</td>
</tr>
</tbody>
</table>

**Maryland State Fire Marshalls Office**

<table>
<thead>
<tr>
<th>Program</th>
<th>Class Hours</th>
<th>Number of Students</th>
<th>Student Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobile Arson</td>
<td>8</td>
<td>47</td>
<td>376</td>
</tr>
<tr>
<td>Bomb School</td>
<td>8</td>
<td>68</td>
<td>544</td>
</tr>
</tbody>
</table>

**Sub-totals**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>99</td>
<td>192</td>
<td>3,260</td>
</tr>
</tbody>
</table>

**Total Fire and Rescue Training**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,789</td>
<td>3,140</td>
<td>91,194</td>
</tr>
</tbody>
</table>
TO: Ted Porter  
Fire-Rescue Specialist

FROM: Glenn W. Moore, Deputy Fire Chief for Support Services

SUBJECT: Description of Prince George's County Fire Training Academy

REF: MFRETC Letter dated March 15, 1978

This letter is to give a brief description of our academy by expounding on the four specific areas you listed.

1. The academy is responsible for conducting firefighter, driver technician and officer training for career members. The academy is also responsible for providing pre-basic and basic training for volunteer firefighters as well as driver technician and officer training for volunteers. Records and certification are required in accordance with department standards.

2. The academy is comprised of a bureau within the Support Services Division of the Department, and as such, is responsible for developing, submitting and justifying its own budget. The academy operates in accordance with its established work plan which is developed as a result of the approved budget, and approved by the Deputy Fire Chief for Support Services and the Fire Chief. The bureau or academy is totally responsible for all of its training site locations, logistics, and personnel needed to carry out its programs.

3. The major functions and programs of the academy are:

Career Recruit School  
Volunteer Recruit School (Pre-Basic)  
Volunteer Breathing Apparatus Course  
Volunteer Firefighter School (Basic)  
Volunteer MFRI Basic Support  
Career Technician Driver Training  
Volunteer Driver Training  
Fire Instructor Training Course  
Career Officer Candidate School  
Volunteer Officer Training I  
Engine Company Operations Course  
Truck Company Operations Course  
Building Construction Course  
Hydraulics and Pumps Course

4318 Rhode Island Ave., Brentwood, Md. 20722
Description of Prince George's County Fire Training Academy (cont'd.)
March 27, 1978

Volunteer Officer Training I (cont'd.)
High Rise Firefighting Course
Sprinkler Course
Elevator and Escalator Course
Hurst Tool Course
Cave-In Operations Course
Metro Construction Course
Water Resource Operations Course
Volunteer Officer Training II
Career Company Evaluation Program
Fire Training Bulletin
Uniform Training Procedures

4. The academy presently has eight full time employees and twelve part time employees.

During the past fiscal year, ending June 30, 1977, the academy interfaced with:

610 Career Members
763 Volunteer Members
1,373 Total

It should be noted that all EMT-A CPR and CRT training in this department is handled by the Emergency Medical Services Division which is not part of the academy.

If we can be of any further assistance, it would be our pleasure to assist you.

GWM:err
CC: file
HOWARD COUNTY TRAINING PROGRAM

This program is the newest of the six career facilities, beginning
in 1971 when Howard County first established a paid fire fighting force.

This program provides training for both volunteer and career fire-
fighters to the tune of 37,000 man hours in 1975. Presently, Howard
County conducts basic and intermediate training courses in conjunction
with the Maryland Fire and Rescue Institute and holds its own classes
in the areas of tactics and hazardous materials.

The staff in Howard County has also developed lesson plans to be
used by the volunteer departments in their monthly drills.

Howard County career recruits currently receive their initial
training at the Academy in Anne Arundel County because there is presently
only a partial facility in Howard County. Already on the books are plans
for a combined Police/Fire Training Academy to give Howard County the
capability of training its own recruits.
PART IV

PLANNING ENTITY AND ADVISORY GROUP

This section identifies the planning entities within the State of Maryland which are responsible for coordinating the development and production of Statewide fire-rescue education and training plan.
Overall Responsibility:

Maryland has emerged with a strong state level coordinating agency for all postsecondary education. This agency is the State Board for Higher Education. As used in this section "postsecondary education" means any system that offers educational programs within the State for persons 16 years of age or older who have graduated from or left elementary school; does not include adult education, evening high school, or high school equivalency programs conducted by a public school of the State. The mandate of the Board extends, therefore, beyond the interest of individual colleges and universities to embrace all aspects of the delivery of educational services to the citizens of the State. Thus, the Board's perspective is required to be broader than those traditionally considered to be important to higher education.

Primary Responsibility:

The Maryland Fire-Rescue Education and Training Commission has primary responsibility for the overall correlation in regard to all matters concerning fire-rescue education and training, as well as being responsible for the development and maintenance of a current Master Plan and minimum uniform standards for emergency services education and training. The Commission is an agency of the State Board for Higher Education and
its powers and responsibilities are secondary to those of the Board. The Commission is composed of 11 members who are representative of various user and interest groups within the State's fire related services. The Commission is supported by a full-time staff at the State Board for Higher Education.

The Commission is charged with the correlation of all programs, development of Master Planning, and program review in cooperation with the users and providers of the State's fire and rescue emergency services. The Commission is also charged to work in cooperation with the Maryland Fire and Rescue Institute in programs of accreditation for emergency services instructors and in the developing and operating of a system for collection and analysis of emergency services education and training data.

Review Responsibility:

Emerging from Maryland's fire and rescue related services has come an ad hoc organization entitled the Maryland Fire Rescue Advisory Council. This Council is an attempt to bring together all fire and rescue related agencies in the State of Maryland to informally confer on matters related to the broad spectrum of issues and activities in the delivery of fire-rescue and emergency medical services/ambulance to the citizens of this State. This organization is composed of various member organizations (a listing of which is included in the Charter included in Appendix D).

It is the intent of the Maryland Fire-Rescue Education and Training Commission to make this organization responsible for primary review of the fire-rescue education and training plan. This organization will be
asked to make recommendations on all phases of the Plan before adoption by the Maryland Fire-Rescue Education and Training Commission and final approval by the State Board for Higher Education.

The total Organizational Design for the delivery of fire-rescue education and training within the State includes not only the State and independent organizations as mentioned above, but also includes all institutions, academies, universities, four-year colleges, community colleges, and local departments which support and interface in the delivery of fire and rescue education and training within the State.
Appendix A

A Plan to Establish and Operate Regional Centers for Training Firefighters and Rescue Personnel in the State of Maryland, Maryland Fire and Rescue Institute, University of Maryland, College Park.

This plan is a 352-page document. The document will be included in the packet transmitted to the National Fire Prevention and Control Administration or can be obtained on request from the Maryland Fire and Rescue Institute, University of Maryland, College Park, Maryland.
MARYLAND FIRE-RESCUE EDUCATION AND TRAINING COMMISSION

COMMITTEE STRUCTURE AND ACTIVITIES

Early in the Commission's development, the members determined that the diverse mandates in its law required a committee structure to establish and carry out operational priorities. The four subcommittees established in January, 1977; Training Standards, Instructor's Qualifications, Data Collection and Federal Relations. These committees were established after a special subcommittee assessed the level of activity required to begin implementation of the statute creating the Commission.

As activities progressed through 1977, the agenda required the formation of several other committees. These were Budget Review, Emergency Care, and Liaison. Three of the committees have non-Commission membership. At the October 1 meeting, the Commission acted to make all seven standing committees, each with their specific role related to provisions of Section 95 (1-14) of Article 77-A.

Following is the present designation of the standing committee, its statutory mandate, and its major activity during 1977:

Training Standards and Program Review

Thomas J. Baginski, Chairman

This committee developed the 24-Hour Pre-Basic Entry Training Program for Firefighters which will be presented to the State Board for Higher Education early in 1978, for approval and implementation. The program contains five performance objectives: protective clothing, protective breathing apparatus, fire hose, nozzles and appliances, fire streams and ladders. During October and November, 1977, at least ten regional hearings among "users" were held throughout Maryland before final adoption by the Commission. In September, 1977, the Maryland State Firemen's Association endorsed the concept of completion of a mandatory pre-basic program before a recruit could respond to an alarm.

An ongoing activity of this committee will be to review and make recommendations to the State Board for Higher Education regarding fire service education and training programs. All new degree programs will be sent to the committee for action before final approval is given by the Board. In addition, the Commission will review all existing programs and new programs proposed by local fire departments and fire training academies. During 1978, the committee will develop criteria guidelines and procedures for this function.
Emergency Services Instructor Qualifications Committee
W. Newton Carey, Jr., Chairman

This committee, in cooperation with the University of Maryland, is in the process of developing a program for accreditation of instructors delivering fire-rescue education or training in this State. The first priority the committee set for itself was to develop a certification standard for instructors delivering non-degree granting training programs.

A two-level qualification standard is being devised -- "Certified" and "Qualified." "Certified" Instructors could teach formal courses such as the Firemen's Training Course - Basic," given by the Maryland Fire and Rescue Institute and other certified courses, while "Qualified" Instructors could teach pre-basic, administer compound-level training, or lecture under a "Certified" Instructor. Standards for "Certified" Instructors are being designed parallel to certification criteria now in existence at Maryland Fire and Rescue Institute. A system is being developed where "Qualified" Instructors would be "Grandfathered" in as "Qualified" in their field of expertise.

The committee supports the concept of continuing education for all instructors. Programs for recertification of Fire and Rescue/Ambulance Instructors is under consideration. Recommendations will equitably reflect the needs of the emergency services and the public.

Additional responsibilities will include review of instructors teaching courses in degree granting programs and the monitoring of a subcommittee which is to develop a study to determine the best means of securing a modern statewide training system that will reach the entire fire and emergency services personnel of the State. In order to broadly represent all views in this area, this committee has four non-Commission members representing Maryland Fire-Rescue Institute and other training academies.

Federal and Out-of-State Relations Committee
C. Oscar Baker, Chairman

This committee is developing continuing relations with Federal and out-of-state organizations which may encourage improvements in emergency services and training in this State. Also, to encourage, promote and continually review research and development in new emergency service techniques, methods and procedures.

It was through this committee that application and subsequent grant of $10,355 was made to the State from the National Fire Prevention and Control Administration under the Academic Planning Assistance Program to develop a document which describes the organizational network through which education and training is being developed and provided for fire personnel and for others engaged in fire prevention and control throughout the State. When completed, this could be an important first step in the development of an overall master plan for fire and emergency services in Maryland.
Emergency Care Committee

Warren E. Isman, Chairman

This committee, in consultation with instructors and users, is to develop recommendations to the Commission on how to promote emergency/ambulance medical services education and training in the State. The committee was formed in October of 1977. The committee is striving to identify the needs of the emergency services and the public and in turn to coordinate the training activities with those needs. The committee will also be working toward the development of statewide standards in the emergency medical/ambulance services in the coming year. This committee has non-Commission membership from the Maryland Institute of Emergency Medical Services.

Budget Review Committee

C. Oscar Baker, Chairman

The function of this committee is to advise the State Board for Higher Education in relation to the operating and capital budget requests of the various fire and emergency services agencies who receive State funds. Specifically, the committee will give attention to the proposed budgets of the Maryland Fire-Rescue Institute and the Maryland Institute of Emergency Medical Services as they impact on fire and emergency services education and training.

Under law, the State Board for Higher Education has the power to recommend an annual consolidated operating and capital budget for all of public postsecondary education to the Governor. As a result, the Maryland Fire-Rescue Education and Training Commission can play a role in recommending to the Board certain priority needs in the area of education and training. In the current Fiscal Year 1978 State Budget, the committee was helpful in directing allocations to the Maryland Fire-Rescue Institute for developing the new unified education and training data system.

Four areas of priority have been identified by the committee for Fiscal Year 1979. It was recommended and approved by the State Board for Higher Education that a new clerical position be added to the Maryland Fire-Rescue Institute staff. Secondly, the committee recommends that an additional professional position and a computer terminal be added to the Maryland Fire-Rescue Institute budget to carry on the new Data Retrieval System after July 1, 1978. Also, the committee will assist the State Board for Higher Education in developing a specific budget for the $30,000 Fiscal Year 1979 grant to the Board for the development of a Video-Cassette Training System for local fire departments. Finally, the committee recommendation that one additional professional and one clerical position be added to the Maryland Fire-Rescue Education and Training Commission staff at the State Board.
Data System Committee
Warren E. Isman, Chairman

During 1977, this committee was very active. Its efforts and activities resulted in establishing a statewide Data Retrieval System for all fire rescue and emergency medical services education and training records in Maryland. The committee worked closely with the Maryland Fire-Rescue Institute and the Maryland Institute of Emergency Medical Services, both of whom are represented on the committee, in developing the program.

Article 77A, Section 95(7) mandates that the Maryland Fire-Rescue Education and Training Commission shall "cooperate with the Maryland Fire-Rescue Institute in developing and operating a system for collection and analysis of emergency services education and training data, and exchange of information." Section 27-A.12.1, Article 77A, states that the Maryland Fire-Rescue Institute shall "collect and store statistics and records on fire and rescue education, training, and related data."

With the full cooperation of Maryland Fire-Rescue Institute and other fire and emergency service groups, the Maryland Fire-Rescue Education and Training Commission has made considerable progress toward implementing this mandate in 1977. The Commission and John Hoglund, Director of Maryland Fire-Rescue Institute, are in complete accord that the approximately 60,000 3x5 cards on file at the Maryland Fire-Rescue Institute must be converted to a computer readable data system. The current system is expensive to maintain and does not efficiently provide the data necessary to carry out our statutory responsibilities. This phase should be completed by March, 1978.

The Commission at its meeting at College Park on April 21, 1977, decided that responsibility for the administration and management of the new data system should rest with Maryland Fire-Rescue Institute, which is the only statewide fire rescue service training center. The data system could become operational over a two year period, hopefully by early 1979.

The second developmental phase should see the system operational at this time if personnel and hardware are made available at the Maryland Fire-Rescue Institute. Thousands of volunteer and career firefighters and emergency medical technicians will have a central repository for all of their past, present and future education training records.

The Commission adopted a policy statement at its April 21st meeting relative to the new data system. Among its important provisions are:

1. The system should be administered by the Maryland Fire-Rescue Institutes.

2. Local training officers and the Maryland Fire-Rescue Institute instructors will be responsible for processing active training records.
3. The State Board for Higher Education will assist wherever possible with fiscal and staff support.

4. Academic as well as "hands on" training and education records will be maintained.

Liaison Committee
Clair Loughmiller, Chairman

Establishment of a formal link between the Board of Advisors of the Maryland Fire-Rescue Institute and the Maryland Fire-Rescue Education and Training Commission in May of 1977, created the need for a standing Liaison Committee. Although this committee will also have responsibility for various liaison activities with the many agencies and associations within the fire service, its major function involves coordinating a permanent relationship with the Maryland Fire-Rescue Institute's Citizen Advisory Board.

The major activity in 1977 was the planning and conducting of the first joint meeting of the two groups held on November 10, 1977 at College Park. The meeting was chaired by Mr. Stanley Freedman, Chairman of the Maryland Fire-Rescue Institute Advisory Board. Major items on the agenda of the meeting were discussions of the Academy Planning Assistance Program Planning Grant, the Maryland Fire-Rescue Institute Board's strong view that a five-year master plan assessment of future education and training needs be undertaken, providing assistance to local training needs throughout the State on an equitable basis, and plans for agendas for future meetings of the two groups.

Another aspect of the Liaison Committee's role was the appointment by Chairman Riley of Mr. Loughmiller as Maryland Fire-Rescue Education and Training Commission's representative to an ad hoc advisory group organized by the State Fire Marshal. This group's goal to organize a "central fire focus" organization will be a major Commission issue in 1978.
MINIMUM PRE-BASIC TRAINING PROGRAM
FOR FIREFIGHTER TRAINEES
IN MARYLAND

Adopted By
The Maryland Fire-Rescue Education & Training Commission
An Agency of the State Board for Higher Education

February 9, 1978
MINIMUM PRE-BASIC TRAINING PROGRAM FOR FIREFIGHTER TRAINEES IN MARYLAND

Introduction

The intent of this document is to provide minimum guidelines for the pre-basic training of those individuals entering the fire service. It is emphasized that this is not a basic training course, and should not under any circumstances be substituted for the basic course.

Due to the limited scope of this pre-basic program, those persons who complete this program should not be placed in a hazardous, dependent or decision-making position. A full basic training program should be undertaken within one year or at the first practical opportunity, whichever comes first.

It is not required, for the objectives to be mastered in the order that they appear. The local program shall establish the instructional priority. Note that this is intended to be a minimum program and is in no way intended to limit either the scope or creativity of local training programs.

The Commission is aware that several local subdivisions already operate pre-basic firefighter training programs. If these programs were put into effect prior to July 1, 1977, they will be reviewed by the Commission. It is anticipated that upon review the Commission will find these programs equal to the proposed Commission program.

For reference material and instructional techniques, use of the Maryland Fire and Rescue Institute "Fireman's Training Course Basic" Manual and/or other local training manuals is suggested. Section I indicates the minimum standards to be achieved by each firefighter trainee. Section II is a guide to the training officer to assist him in evaluating the performance for each standard objective of each trainee.

TRAINING STANDARDS COMMITTEE

Thomas J. Baginski, Chairman
C. Oscar Baker
Charles W. Riley
Raymond A. Simpson, Jr.
Performance Objectives - Each fire department training officer or a chief officer shall be responsible for conducting the pre-basic course as outlined below.

A. Protective Clothing.

The intent of this section is to familiarize the new trainee with that protective clothing that he/she will be using in his/her department; demonstrate to him/her the proper method of wearing this clothing; explain the functions and its features of providing protection; emphasize to the student the importance of leaving linings in the coats and of wearing full turn-out gear while engaged in firefighting activities.

1. Show proper donning of protective clothing.
2. Have student don clothing and make corrections where necessary.
3. Stress such activities as pulling up boots, pulling up collars, putting down earflaps, and use of gloves.

B. Protective Breathing Apparatus.

The intent of this section is to familiarize the new trainee with all types of protective breathing apparatus used by the department; demonstrate to the student the proper method of donning the apparatus and of putting it into use; explain the operating and safety features of all types of breathing apparatus used by the department.

1. The trainee shall be able to name hazardous respiratory environments encountered in firefighting.
2. The trainee shall be able to identify all types of protective breathing apparatus used by the department.
3. The trainee shall understand the limitations of the protective breathing apparatus used by the department.
4. The trainee shall be taught to recognize when the protective breathing apparatus is in a safe condition for immediate use.
5. The trainee shall be taught the proper procedure for cleaning and sanitizing protective breathing apparatus for future use.
C. Fire Hose, Nozzles and Appliances.

The intent of this section is to acquaint the new trainee with those hoses, nozzles and appliances that will be used in his/her department; demonstrate to the student the proper means of coupling hose; demonstrate the proper means of advancing lines and allow him to experience advancing lines while flowing water; demonstrate to him the proper means of caring for hoses, nozzles and appliances in accordance with the standards set by the individual department. The following tasks shall be performed by the student as a member of a team to the satisfaction of the training officer present.

1. The trainee, using a first line fire department pumper, shall identify the sizes, types, amounts, and use of hose carried on that pumper.

2. The trainee, using a first line fire department pumper, shall identify the use of hose adaptors, and hose appliances carried on that pumper.

3. The trainee, given the necessary equipment and operating as a member of a team, shall be able to advance dry hose lines of two different sizes, one of which shall be 1-1/2 inch and the other larger, from a pumper:
   a. into a structure
   b. up a ladder into an upper floor window
   c. up an inside stairway to an upper floor
   d. up an outside stairway where applicable to an upper floor
   e. down an inside stairway to a lower floor
   f. down an outside stairway where applicable, to a lower floor
   g. to an upper floor by hoisting

4. The trainee, given the necessary equipment and operating as a member of a team, shall advance charged attack lines of two different sizes, one of which shall be 1-1/2 inch and the other
e. down an inside stairway to a lower floor
f. down an outside stairway where applicable, to a lower floor
g. to an upper floor by hoisting

5. The trainee shall understand the proper method of cleaning fire hoses, couplings and nozzles, and inspecting for damage.

6. Where applicable, the trainee shall be taught connection of fire hose to a hydrant, and the operation of fully opening and closing the hydrant.

7. The trainee shall be taught the loading of fire hose on fire apparatus as prescribed by the department.

8. The trainee shall be taught the hose rolls as specified by the department.

9. The trainee shall be taught the hose carries as specified by the department.

10. The trainee shall be taught the hose drags as specified by the department.

11. The trainee shall be taught at least two methods of coupling and uncoupling fire hose as specified by the department.

12. The trainee, given the necessary equipment and operating as a member of a team, shall be taught the method of working from a ladder with charged attack lines of two different sizes, one of which shall be 1-1/2 inch and one larger, from a pumper.

13. The trainee shall be taught the method of carrying a hose into a building to be connected to a standpipe where applicable, and the method of advancing a hose line from a standpipe where applicable as specified by the department.

14. The trainee shall be taught the methods for extending a hose line, and replacing a burst section as specified by the department.

D. Fire Streams.

The intent of this section is to familiarize the new trainee with the effective use of fire streams.

1. The trainee shall be able to define a fire stream.

2. The trainee shall be able to manipulate the nozzle of a charged line so as to attack at least two live fires if possible including: a Class A fire and a Class B fire. (See appropriate Federal and State regulations.)
3. The trainee shall be able to define water hammer and at least one method for its prevention.

4. The trainee shall be taught how to properly open and close a nozzle, noting that the air should be bled off a charged line before directing the stream towards a fire.

E. Ladders.

The intent of this section is to familiarize the new trainee with those ladders carried in his department; demonstrate to the student the proper method of removing the ladders from the apparatus and carrying them to the scene; demonstrate the proper methods of climbing and working from ladders, and using simple tools from the ladder. In each case the student should perform the tasks to the satisfaction of the training officer present.

1. The trainee shall be able to identify all ladders specified by the department and describe their uses.

2. The trainee, operating as an individual and as a member of a team, shall be taught the following ladder carries, the method of carrying being specified by the department:

   a. one person carry
   b. two person carry
   c. three person carry
   d. four person carry
   e. five person carry, where applicable
   f. six person carry, where applicable

3. The trainee, operating as an individual and as a member of a team, shall be taught to raise every type and size of ground ladder as specified by the department.

4. The trainee shall be taught to correctly climb the full length of every type of ground and aerial ladder where applicable, specified by the department.

5. The trainee shall be taught to correctly climb the full length of the tallest ground ladder carried by the department, carrying firefighting tools or equipment while ascending and descending the ladder.

6. The trainee shall be taught the proper methods of working from a ground ladder with tools and appliances and where applicable, an aerial ladder with a life belt.

7. The trainee shall be taught the proper method for cleaning ladders.
Evaluating Performance - This section is to guide the training officer in evaluating the performance of trainees in accordance with this program.

A. Evaluating Performance for Protective Clothing. 2 Hours Practical

1. After having all protective clothing explained to each trainee, the trainee shall satisfy the training officer that he/she can demonstrate the proper wearing of protective clothing.

The training officer shall note that boots and collars are pulled up, earflaps down and that gloves are on.

2. After having protective clothing demonstrated, the trainee shall explain the functions of the safety features as designed into the clothing.

B. Evaluating Performance for Protective Breathing Apparatus.

2 Hours Class 2 Hours Practical

1. The student shall explain the operation of demand type and where applicable, pure demand type breathing apparatus.

2. The student shall satisfy the training officer that he/she understands and explains the safety features of all types of breathing apparatus used by the department.

3. The trainee should demonstrate to the training officer that he/she has the necessary knowledge to clean and maintain breathing apparatus.

C. Evaluating Performance for Fire Hose, Nozzles and Appliances.

2 Hours Class 6 Hours Practical

1. After being taught the aforementioned tasks and having all the hoses, nozzles and appliances explained to each trainee, the trainee shall satisfy the training officer that he understands what he has been taught.

2. The trainee should demonstrate to the training officer that he/she knows the locations, size, amounts and uses of hoses carried on his department's first line pumper.

3. The trainee should demonstrate to the training officer that he/she knows the name, location and use of all adaptors and appliances found on his department's first line pumper.

*The times indicated represent the minimum total exposure each trainee should receive in the respective areas.
4. The trainee, given the necessary equipment and operating as a member of a team, shall advance dry hose lines of two different sizes, one of which shall be 1-1/2 inch and the other larger, from a pumper:
   a. into a structure
   b. up a ladder into an upper floor window
   c. up an inside stairway to an upper floor
   d. up an outside stairway where applicable to an upper floor
   e. down an inside stairway to a lower floor
   f. down an outside stairway where applicable, to a lower floor
   g. to an upper floor by hoisting

5. The trainee, given the necessary equipment and operating as a member of a team, shall advance charged attack lines of two different sizes, one of which shall be 1-1/2 inch and the other larger, from a pumper:
   a. into a structure
   b. up a ladder into an upper floor window
   c. up an inside stairway to an upper floor
   d. up an outside stairway where applicable, to an upper floor
   e. down an inside stairway to a lower floor
   f. down an outside stairway where applicable, to a lower floor
   g. to an upper floor by hoisting

6. The trainee shall demonstrate cleaning fire hoses, couplings and nozzles, and inspecting for damage.

7. Where applicable, the trainee shall demonstrate the connection of fire hose to a hydrant, and the operation of fully opening and closing the hydrant.

8. The trainee shall demonstrate the loading of fire hose on fire apparatus as prescribed by the department; and shall also identify the purpose of at least three types of hose loads.

9. The trainee shall demonstrate the hose drags as specified by the department.
10. The trainee shall demonstrate at least two methods of coupling and uncoupling fire hose as specified by the department.

11. The trainee, given the necessary equipment and operating as an individual and as a member of a team, shall demonstrate the method of working from a ladder with charged lines of two different sizes, one of which shall be 1-1/2 inch and one larger, from a pumper.

12. The trainee shall demonstrate the methods of carrying a hose into a building to be connected to a standpipe where applicable, and the method of advancing a hose line from a standpipe where applicable, as specified by the department.

13. The trainee shall demonstrate the methods of extending a hose line, and replacing a burst section as specified by the department.

14. The trainee should demonstrate to the training officer that he/she knows the hose carries as specified by the department.

15. The trainee should demonstrate to the training officer that he/she has the necessary knowledge to clean and maintain hoses, nozzles and appliances.

D. Evaluating Performance for Fire Streams. 3 Hours Practical

1. After having all the fire streams and their uses explained to each trainee, the trainee shall satisfy the training officer that he understands what he has been taught.

2. The trainee shall demonstrate the proper method of shutting down hose lines and water valves in order to avoid causing water hammers.

3. The trainee shall demonstrate his proficiency of manipulating a nozzle so as to attack a fire.

E. Evaluating Performance for Ladders. 2 Hours Class 5 Hours Practical

1. After having all the ladders and their uses explained to each trainee, the trainee shall satisfy the training officer that he/she understands what he/she has been taught.

2. After having each carry explained and demonstrated to the student, the trainee shall demonstrate his/her proficiency to the training officer.

3. After having each raise explained and demonstrated to the student, the trainee shall demonstrate his/her proficiency to the training officer.
4. The student should demonstrate proper climbing techniques and then ask the trainee to climb, while the training officer watches for evidence of ladder "shyness" or other physical problems that might be encountered. Proper leg lock procedures should be used, except on the aerial if it is used.

5. After demonstrating how various tools are handled on a ladder, the trainee shall demonstrate to the training officer his proficiency.
CREATING THE MARYLAND FIRE RESCUE ADVISORY COUNCIL

(FORE THE PURPOSE) OF bringing together all fire and rescue agencies and organizations in the State of Maryland to informally confer on matters related to the broad spectrum of issues and activities in the delivery of fire, rescue and emergency medical services to the citizens of the State.

WHEREAS the major components of fire, rescue and emergency medical services are research, planning, prevention, control and training; and

WHEREAS the Federal Government through the National Fire Prevention and Control Administration, through its policies involving activities with the 50 states desires a process to deal directly with a central focal point in each State; and

WHEREAS, in the State of Maryland there exists a multiplicity of agencies and organizations, all of which are engaged in activities related directly or indirectly to research, planning, prevention, control, and training; and

WHEREAS many of the agencies advisory committees as part of their organizational framework and volunteer organizations such as the Maryland State Firemen's Association have considerable influence over the shaping of fire, rescue and emergency medical policies; and

WHEREAS the several State and local agencies through their statutory mandates and the advisory groups and volunteer organizations need the opportunity afforded by the creation of a fully representative advisory council to deal with overlapping mandated agency responsibilities, creating effective lines of communication with advisory groups and volunteer organizations, and to enable the N.F.P.C.A. to effectively allocate resources; now

THEREFORE BE IT RESOLVED that the Maryland Fire Rescue Advisory Council is hereby created for the purpose of acting as a focal point on activities between N.F.P.C.A. and fire, rescue and emergency medical services in the State of Maryland and to carry out the objectives as noted on page 5 herein; and
BE IT FURTHER RESOLVED, that the Council shall take effect July 1, 1978, upon
the authorized signature of all agencies listed with this Charter, whose member
organizations agree to the attached list of objectives and operational guidelines.
1. Maryland Arson Investigators Association
2. Maryland Association of Counties
3. Maryland Building Officials Association
4. Maryland Council of Training Academies
5. Maryland - D. C. Professional Firefighters Association
6. Maryland Fire Chiefs Association
7. Maryland Fire Prevention Association
8. Maryland Fire-Rescue Education and Training Commission
9. Maryland Fire Rescue Institute
10. Maryland Forest Service
11. Maryland Institute of Emergency Medical Services
12. Maryland Municipal League
13. Maryland State Firemen's Association
15. Regional Planning Council
16. State Department of Planning
17. State Fire Marshal's Office
18. State Fire Prevention Commission
Several of the member organizations who are signatories to the Maryland Fire Rescue Advisory Council Charter are assigned to various Cabinet level State Departments. For example, the Maryland Fire-Rescue Education and Training Commission is an agency of the State Board for Higher Education, and the State Fire Marshal's Office is a part of the Department of Public Safety and Correctional Services.

The Operational Guidelines for the Maryland Fire Rescue Advisory Council call for a sharing of necessary staff resources required for the conduct, convening and recording of regular meetings. It will be incumbent upon the various parent departments to be sensitive to the minimal staff support required for the Maryland Fire Rescue Advisory Council.

Therefore, the following department heads are requested to become ex-officio members of the Maryland Fire Rescue Advisory Council. The letter of invitation will suggest a review of the Charter documents. An affirmative response to the invitation to become an ex-officio member will denote support for the Maryland Fire Rescue Advisory Council. The following should be contacted:

- Commissioner of Higher Education, State Board for Higher Education
- Secretary, Department of Natural Resources
- Secretary, Department of Public Safety and Correctional Services
- Secretary, Department of State Planning
- Secretary, Department of Health and Mental Hygiene
C. OBJECTIVES

MARYLAND FIRE RESCUE ADVISORY COUNCIL

In carrying out the terms of the Charter, the MFRAC will be guided by the following overall objectives in its activities:

1. To act as a focal point for the fire, rescue and emergency medical services agencies and organizations across the entire spectrum of fire research, planning, prevention, control and training activities in Maryland with the NFPCA.

2. To act in an advisory capacity to those agencies required by law to develop Statewide master plans in the areas of prevention and training.

3. To act in an advisory capacity to the various agencies and organizations on issues and problems that affect the operations and responsibilities of two or more agencies and organizations.

4. To act in an advisory capacity to the member agencies and organizations in the establishment of goals, objectives and setting priorities for dealing with the needs in fire and rescue services in the State of Maryland.
D. OPERATIONAL GUIDELINES

1. The MFRAC shall meet quarterly, four times per calendar year and/or at call of chairman.

2. Each organization is entitled to name one representative and one alternate representative, with each organization entitled to one vote.

3. At least 60 percent of the member organizations must be present in order to constitute a quorum.

4. Officers shall include a chairman, vice-chairman and secretary, who shall constitute the Executive Committee.

5. The officers shall be selected annually by a vote of the member organizations at the third quarterly meeting.

6. Staff support for the MFRAC will be provided by the member organizations on a shared basis.

7. The place of the meetings shall be determined by the Executive Committee.

8. Preparation of the agenda shall be the responsibility of the Executive Committee.

9. New organizations shall be admitted to membership at any meeting on the approval of three-fourths of the members present and voting.

10. All actions of the MFRAC shall require a majority vote of the members present and voting except as otherwise noted, provided a quorum is present, with business conducted under 'Roberts' Rules of Order, latest edition.

11. This charter may be amended by a three-fourths vote of members present and voting at any meeting if the amendment has been presented in writing at a previous meeting.