



Montgomery County Government

ORGANIZATION AND MANAGEMENT OF THE MONTGOMERY COUNTY EMERGENCY COMMUNICATIONS CENTER

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EXECUTIVE SUMMARY

For three decades, the County has operated separate police and fire and rescue emergency communications operations. Colocated first in a World War II type bomb shelter under the Council Office Building (COB), the Police Communications Center and the Fire and Rescue Communications Center currently occupy separate floors in a stand-alone facility adjacent to the COB. The official designation of the facility is the Emergency Communications Center (ECC).

The Police Communications Center is staffed totally by civilian technicians of the Police Department. Operationally, all 911 and other emergency calls first come to the Police Communications Center and are answered by a police technician call-taker. The caller is queried as to the type emergency: police, fire or medical. If the call is for a police emergency, the police call-taker processes the call, and, if an immediate police presence is necessary, electronically transfers the call to another police technician for dispatch.

If the incoming emergency call is for a fire, rescue, or medical emergency, the police technician call-taker immediately transfers the call to the Fire and Rescue Communications Center where it is answered, processed and, if required, the appropriate equipment is dispatched. Unlike the Police Communications Center, the Fire and Rescue Communications Center is staffed with career, public safety fire/rescue personnel.

Assisting in the electronic transfer of data from call-takers to dispatchers within and between the two separate communications centers is a Computer Aided Dispatch (CAD) system. Also located in the ECC are numerous consoles, terminals, phones, teletypes for the deaf, and an Automatic Call Distributor that receives, routes, and queues incoming telephone calls.

This report evaluates the current staffing and operations of the ECC and presents conclusions concerning three issues:

- The separate Police and Fire and Rescue Communications Centers should be consolidated.
- The optimum organizational arrangement for the consolidated ECC would be an independent, stand-alone activity reporting directly to the Chief Administrative Officer.
- The current staffing of the Fire and Rescue Communications Center should be changed from career, public safety positions to civilian, non-public safety communications positions.

**ORGANIZATION AND MANAGEMENT
OF THE MONTGOMERY COUNTY EMERGENCY COMMUNICATIONS CENTER**

I. AUTHORITY, SCOPE, METHODOLOGY AND ACKNOWLEDGEMENT

A. Authority

Council Resolution No. 12-608, subject: CY 1992 Work Program of the Office of Legislative Oversight, adopted April 7, 1992.

B. Scope and Organization of the Report

This report examines the organization and staffing of the County's Emergency Communications Center. The report evaluates the current organization of separate police and fire communications operations; analyzes the annual cost of operating the Emergency Communications Center (ECC); and evaluates the staffing of the Fire and Rescue Communications Center with uniformed, career firefighters/rescuers. Specifically excluded by the Council from the Office of Legislative Oversight (OLO) study was an evaluation of Park Police communications functions.

This report is organized as follows:

- A discussion of the background and history of the County's Emergency Communications Center (ECC).
- An examination of the current organization, management and operation of the ECC, to include a three-year review of revenues and operating expenses of the ECC.
- An overview of ECC organizations and operations in other jurisdictions.
- Presentation of the report's findings addressed in terms of three issues: possible consolidation of ECC, management of a consolidated ECC, and the career staffing of fire/rescue communications.
- Presentation of OLO's conclusions and recommendations.

C. Methodology

This project was conducted during October-December, 1992, using an evaluation design that included a variety of fact-finding and research methods:

- Review of the current organization and operations of the Emergency Communications Center;
- Visit to ECCs in several local jurisdictions in Maryland and Virginia.

- Review of County laws, policies and procedures of the Departments of Police and Fire and Rescue Services relating to operations of their respective communications centers;
- Interviews with current and former employees of the ECC and officials with interests in its organization and operations.

D. Acknowledgment

OLO wishes to acknowledge the full cooperation and courteous support from the personnel of the Police Communications Center and the Fire and Rescue Communications Center. Also, other employees in the departments of Police, Fire and Rescue Services, Information Systems and Telecommunications, and Facilities and Services provided information and insight on the organization and operations of the ECC. OLO appreciates their candor and forthright views. Finally, as with all OLO reports, the report solely represents the analyses, findings, and conclusions of the writer.

II. BACKGROUND AND HISTORY

Initially, County citizens who needed police, fire, or medical assistance had to call different numbers. For police assistance, citizens called a single seven-digit number, and for fire and ambulance assistance, the specific fire company serving the community where the emergency occurred was called. Later, calls for fire and ambulance assistance were reduced to one of two fire stations; one in the lower half of the County near Four Corners, and another in the up-County Gaithersburg area, each with its own seven-digit number. In 1964, the separate police and fire/ambulance communication centers were combined in an underground facility under the Stella B. Werner Council Office Building (COB) and designated the County's Emergency Operations Center.* However, although combined in the same facility, the police and fire/rescue retained their separate seven-digit emergency numbers.

In November 1974, the County introduced the single three-digit telephone number "9-1-1" to request police, fire, rescue, and medical assistance. The change-over to the simpler three-digit number for all public safety emergencies was part of a national program that was funded through a dedicated surcharge on the bills for local telephone services. The major characteristics of the 911 system, besides the simple three-digit number for all public safety assistance, was the installation by the local telephone company of specially dedicated 911 telephone lines for the 16 telephone wire

* Through the years, the original underground facility and later the above ground facility adjacent to the COB have had several names: Emergency Operating Center (EOC), Police/Fire Communications Center, and Emergency Communications Center (ECC). When the ECC moved to the present stand-alone building in late 1988, the facility was officially designated the County's Emergency Communications Center.

centers located throughout Montgomery County to route the 911 calls directly to the ECC, thereby increasing the possibility of the emergency call reaching the ECC. Notwithstanding the improvements of this basic 911 system, the processing of 911 calls after they were received in the ECC remained essentially a manual operation.

The public information campaign at the time 911 became operational described the new system as the "911 Assistance Service". The theme was repeated in news releases, on stickers affixed to telephones, in telephone bill inserts, and in the inside cover of telephone directories. In addition, large decals announcing to County residents: "Assistance-Dial 911" were prominently affixed to all marked police cruisers and other public safety vehicles.

Since the early 1960s, police communications utilized civilians as call-takers and dispatchers under the supervision of a uniformed police captain, with the Chief of Police exercising overall management. In 1989, police communications became totally civilian when supervision of the police communications operation was changed from a sworn police captain to a civilian manager. The civilian manager, or director, reports through the police chain-of-command to the Chief.

Until 1976, call-takers and dispatchers in fire/rescue communications were County civilian employees, under the direct supervision of a civilian communications chief. Overall management of fire/rescue communications was the responsibility of the Director, Department of General Services (the predecessor to the Department of Facilities and Services), who also had responsibility for telecommunications. In 1976, after creation of the Department of Fire and Rescue Services (DFRS), management of fire and rescue communications was transferred to that department, and the civilian fire and rescue call-takers, dispatchers, and supervisor were reclassified into the firefighter class.

By 1984, the volume of non-emergency and administrative calls coming into the ECC over the 911 lines were such that true emergency calls were being delayed. In response to a number of critical media articles and citizen complaints concerning the inability to reach a 911 call-taker due to call overload, the Council directed its Office of Legislative Oversight (OLO) to evaluate the 911 service. One of the major recommendations of the evaluation (OLO Report 84-1, May 1984), was to initiate a public education program to inform the citizens that use of the 911 number should be limited to true emergencies.

Beginning in late 1984, the County, with the assistance of the telephone company, began a program to educate the public on the emergency nature of the 911 system. At the same time, special seven-digit trunk lines were installed in the ECC to provide for handling non-emergency and administrative calls.

The next major improvements in the operation of the ECC occurred in the period 1986-1988, and were three: the installation of an Enhanced 911 system, the move to a separate stand-alone facility, and the introduction of a Computer Aided Dispatch (CAD) system.

A. Enhanced 911

The 911 system introduced in 1974 was the basic system. That system provided for a number of dedicated 911 lines routed from telephone centers located throughout the County directly through the Rockville Telephone Center into the EOC. Originally the ECC lines terminated at switchboards in the EOC where the calls were routed to either a police call-taker or fire/rescue call-taker.

In 1986, the County switched to the "Enhanced 9-1-1" system, or, more commonly referred to as "E911". The first improvement of the E911 system was the introduction of an automatic call distributor or ACD. The ACD was an electronic switching computer that replaced the four manual switchboards and enabled 911 calls to be received and electronically routed to call-taker positions. In addition, the ACD provided "stacking" of calls in a queue during peak periods of call activity.

Other major improvements of the E911 system over the basic system included:

1. **Selective Routing**. The telephone company was able to provide electronic switching to enable all 911 calls from telephones physically located in Montgomery County to go directly to the Montgomery County EOC and not to the adjacent jurisdiction where their regular seven-digit calls were directed. This was a major improvement because telephone company service areas do not parallel political boundaries.
2. **Automatic Number Identification (ANI)**. Provided a visual display on the call-taker's console screen the phone number of the location from which the 911 call was being made.
3. **Automatic Location Identification (ALI)**. Provided a second visual display on the call-taker's console screen of the street address location of the telephone from which the 911 call was being made.
4. **Selective Management Information**. Enabled the collection of management information, such as the number of 911 calls received, when each 911 call was received, how many times the phone rang before it was answered, and the identification of the call-taker who answered the call.

B. New ECC Facility

In late 1988, all ECC operations moved from the facility under the Council Office Building (COB) to a stand-alone building adjacent to the COB. Besides providing more space, the new above ground facility greatly improved the working conditions and morale of the police and fire and rescue personnel assigned there.

C. Computer Aided Dispatch

Also in late 1988, the Computer Aided Dispatch (CAD) system became operational in the ECC. After almost ten years of study and design, the CAD system was a major improvement in ECC operations. (Earlier, in 1980, the Fire and Rescue Communications Center implemented a limited computer assisted system for monitoring unit status and generating tones or alert signals).

The major improvement resulting from implementing the CAD system was an increase in the speed and accuracy of the dispatch process, with a resulting reduction in response time. Specifically, the CAD system permitted electronic transfer of data from the call-taker to the dispatcher, thus eliminating the requirement of the call-taker to write out pertinent information and manually transfer that information to a dispatcher. In addition, the CAD system permitted programming predetermined response assignments, information on the location of hazardous materials, and other critical response advisements. Finally, the CAD system provided incident records and management information.

III. CURRENT ORGANIZATION, MANAGEMENT, AND OPERATION OF THE ECC

A. Overview

The overall mission of the Emergency Communications Center (ECC) is to provide alert notification and direction within established protocols and standard operating procedures to police and fire and rescue elements. The ECC is composed of two independent, but related communication centers: Police and Fire and Rescue. The Police Communications Center, a subordinate activity of the Department of Police, occupies the first and second floors of the ECC and is responsible for receiving all 911 and other emergency calls, processing and dispatching those requiring a police response, and transferring fire and rescue (medical) emergency calls to the Fire and Rescue Communications Center. The Fire and Rescue Communications Center, a subordinate activity of the Department of Fire and Rescue Services (DFRS), is located on the third floor of the ECC, and is responsible for processing and dispatching all calls for fire, rescue and medical service. Each center is responsible to their respective department directors for its organization, staffing and operations.*

Because of the heavy dependence on telephones, radios and computers for the operation of the ECC, the Department of Information Systems and Telecommunications (DIST) provides an important support role in the ECC.

In this chapter of the report, the organization, staffing and operations of these three separate departments are described, and their integrated operations is illustrated. In a subsequent chapter, the annual operating costs of each of the three elements, and other costs related to ECC operations, are presented.

* Also located on the second floor of the ECC are common areas serving both the Police and Fire and Rescue Communication Centers: computer equipment room, lounge, kitchen, and telephone and electrical equipment rooms.

B. Police Communications Center

1. Organization and Staffing. The Police Communications Center is a division within the Police Bureau of Management Services. The approved FY93 personnel complement of the division (unchanged from FY92) authorizes 99 full-time positions:

<u>Position</u>	<u>Grade</u>	<u>No. Authorized</u>
Director	27	1
Deputy Director	25	1
Administrative Specialist II	21	1
Police Technician Supervisor	20	8
Police Technician III	19	22
Police Technician II	17	65
Office Services Manager	15	<u>1</u>
Total:		99

All positions in the Police Communications Center are civilian. At Exhibit A is the average annual compensation for each position authorized in the Police Communications Center.

Within the Police Communication Center are 12 call-taker consoles, eight dispatcher consoles and a console for the call-taker supervisor and a console for the dispatcher supervisor. Police Technicians are cross-trained to work the call-taker and dispatcher positions.

The primary mission of a civilian Police Technician assigned to the Police Communications Center is to answer all emergency calls, process and dispatch police emergencies, and transfer fire and medical emergency calls to the Fire and Rescue Communications Center. To perform this mission, the Center is staffed around-the-clock, 365 days-a-year. The personnel operate in three eight-hour shifts, with the 4:00 p.m.-12:00 midnight shift staffed slightly larger because of the added activities during that period. Each Police Technician works a total of 40 hours a week on his/her particular shift.

2. Operations. All 911 calls and calls over two emergency seven-digit lines are answered by a Police Technician call-taker located on the first floor of the ECC with an inquiry as to whether the person is requesting police, fire or medical assistance. If the call is a police emergency, the call-taker begins taking down the information and processing the call. If an immediate police response is warranted, the call-taker electronically transfers the information via the CAD system to the police dispatcher for the appropriate police district who dispatches an officer to the scene.

If the 911 call is a fire or medical emergency, the police call-taker immediately transfers the incoming call to the Fire and Rescue Communications Center on the Third floor of the ECC where the call is received and processed, and appropriate apparatus is dispatched.

The ECC also receives calls of a police emergency from locations within the jurisdiction of Federal reservations, municipalities, the Maryland-National Capital Park and Planning Commission's Police, and the Maryland State Police. The calls are handled in accordance with pre-established procedures. At Exhibit B is a summary of those procedures.

Other operational responsibilities of the Police Communications Center include:

- Operating the Maryland-Interagency Law Enforcement System (MILES) computer to trace stolen property, drivers licenses, missing persons, etc.;
- Maintaining the geographical data base for new and closed streets;
- Monitoring the National Crime Information Center (NCIC) terminal, and two TDD (telecommunication devices for the deaf) terminals;
- Maintaining records of emergency and nonemergency telephone calls received in the ECC;
- Answering non-emergency calls;
- Maintaining CAD computer hardware and software; and
- Overall responsibility for the ECC facility.

C. Fire and Rescue Communications Center

1. **Organization and Staffing.** The Fire and Rescue Communications Center is an element of the Bureau of Field Support Services in the Department of Fire and Rescue Services (DFRS). The approved FY93 personnel complement authorizes 23 full-time positions (22 career and one civilian) and one part-time administrative position (unchanged from FY92). The breakdown of the 23 full-time positions are as follows:

<u>FT Position</u>	<u>Grade</u>	<u>No. Authorized</u>
Fire/Rescue Captain	27	1
Fire/Rescue Lieutenant	24	1
Fire/Rescue Sergeant	20	4
Master Firefighter/Rescuer	19	4
Firefighter/Rescuer III	17	12
Fire/Rescue Comm Training Asst (Civ)	17	<u>1</u>
Total:		23

Unlike the Police Communications Center, all positions are staffed by career officers or career firefighters/rescuers, except for the position of Training Assistant, Grade 17, and a part-time Principal Administrative Aide, Grade 13. At Exhibit A is the average compensation for each position authorized in the Fire and Rescue Communications Center.

Within the Fire Rescue Communications Center, located on the third floor of the ECC, are six operator consoles and a supervisor's console. Five of the consoles are essentially identically equipped with telecommunications and CAD terminals to receive calls, dispatch apparatus, and monitor activities. The sixth console can perform all operations except receive 911 calls. Originally designed and equipped for a seven-person operation, the center is currently staffed to operate with four persons: two call-takers, one fire/rescue dispatcher, and a supervisor.

The Fire and Rescue Communications Center is also staffed for around-the-clock, 365 day-a-year operation. Career firefighters/rescuers work an average of 42 hours a week in 12-hour shifts: two 12-hour days, two 12-hour nights, and four days off.

2. Operations. As stated earlier, a call for fire, rescue or medical emergency received by a police call-taker is immediately transferred to a fire and rescue call-taker, who records pertinent information. The information is electronically transferred via the CAD system to the fire and rescue dispatcher, who in turn dispatches the appropriate apparatus according to pre-determined response assignments programmed into the CAD system.

When emergency calls for fire, rescue or medical assistance from outside the County are received, the necessary information is taken, and the caller is advised that the appropriate jurisdiction will be notified. Emergency calls from federal reservations are received and processed and appropriate apparatus is dispatched. These procedures are contained in mutual aid agreements.

Other operational responsibilities of the Fire and Rescue Communications Center include:

- Monitoring mutual aid channels and TDD lines;
- Overseeing operation of the Life Safety Alarm System;
- Entering relevant information into the appropriate CAD incident records;
- Monitoring and coordinating Med-Evac operations and operations on the State Emergency Medical Communications Network; and
- Providing pre-arrival medical instructions.

D. The Department of Information Systems and Telecommunications

1. Organization, Staffing, and Support Services. The Department of Information Systems and Telecommunications (DIST) has no assigned staff in the ECC. However, DIST does provide a number of critical services in support of ECC operations. These support services include:

- Maintenance and operational status of: radios and consoles within the ECC, in other police and fire and rescue facilities, and in police vehicles and fire/rescue apparatus; portable radios and pagers, battery chargers, hookups and peripheral communications equipment. (See footnote for telephone support).*
- Maintenance and management of the Dual Independent Mapping Encoding (DIMES) system, on the County's mainframe IBM computer, on which geographic identifiers such as Police Reporting Areas and beats, and fire and rescue response areas are recorded.
- Data storage and production of management reports on the mainframe IBM computer.
- Administer the Management Systems Development nondepartmental account for 911 and CAD systems upgrades.
- Technical advice through membership and chair of the CAD Coordinating Committee, which had responsibility for the initial planning and installation of the CAD system, and is presently responsible for the recent upgrade and modifications to the CAD hardware and software.

Although a DIST manager chairs the CAD Coordinating Committee and manages CAD mainframe upgrades, DIST has no operational responsibility for the CAD computer, and provides no maintenance support for that system.

E. Integrated Operations of the Emergency Communications Center

1. Physical Layout and Equipment. As stated earlier, the Police and Fire and Rescue Communications Centers are located on separate floors of the new ECC facility. The police occupy the first two floors, and fire/rescue, the third. The police have a total of 22 console positions: 12 call-taker, eight dispatch, and two supervisor. Fire and Rescue have seven console positions: six call-taker/dispatcher and one supervisor.

A total of 15 emergency 911 lines are routed into the Automatic Call Distributor (ACD) in the ECC. In addition, two seven-digit emergency lines, five non-emergency lines and one administrative line are routed into the ACD. The ECC is also provided with a number of other direct lines to: METRO Transit Police, fire and police ECCs in adjacent jurisdictions, Andrews Air Force Base Linguistics Bank (for Spanish and Portuguese), and the AT&T Language Bank for other foreign language translation assistance.

* Telephone maintenance and service fees are paid by DIST and charged back to either the Police or Fire and Rescue Services departments, according to where the phone service is located.

Supporting both police and fire and rescue communications operations is a single CAD system located on the second floor of the ECC facility. Recently, the original two Hewlett-Packard (HP) series 70 computers were upgraded, becoming operational on February 1, 1993. Currently, the CAD system services approximately 115 terminals located in the ECC, in police district headquarters and fire stations, municipal police departments, and the Sheriff's office.

2. Current Operating Procedures

General. All 911 and other emergency calls to the ECC are routed into the Automatic Call Distributor (ACD), which distributes the call to the next available emergency call-taker in the Police Operations Center.* The police call-taker answers the emergency call with the query: "911, do you need fire, police or ambulance?" If the caller is in need of fire, rescue or medical assistance, the police call-taker immediately transfers the call electronically to the fire/rescue call-taker, and is free to receive the next 911 call.

Police Emergency. If the 911 call is a police emergency, the police call-taker identifies his/her identification number and begins to receive and record the caller's request on the CAD terminal. If the call does not require an immediate police response, the caller is provided appropriate instructions. However, if the call is such that immediate police assistance is warranted, the police call-taker records the necessary information according to police operating procedures and electronically transfers that information to the console and screen of the police dispatcher of the appropriate police district. (As stated earlier, when the 911 call is answered, the ANI and ALI automatically displays on the call-taker's screen the phone number and street address location of the phone from which the 911 call is originating. ANI and ALI data are part of the information that is transferred to the police dispatcher's screen.)

Fire/Rescue Emergency. If the 911 caller identifies the emergency as fire, rescue or medical, the police 911 call-taker immediately transfers the call to the fire/rescue call-taker on the third floor of the ECC. The fire/rescue call-taker collects the necessary information according to fire and rescue operating procedures and transfers that information to the console and screen of the fire/rescue dispatcher. The dispatcher, assisted by the CAD system's programmed alert signals and response assignments, notifies the appropriate station or stations and dispatches the appropriate apparatus. Should the fire/rescue dispatcher or supervisor desire a response different than the CAD programmed response, the CAD system can accept assignment changes.

* Should all police emergency call-takers be busy, the ACD automatically routes the call to a police administrative call-taker console. If those call-takers are also busy with an emergency call, the ACD routes the call to the Fire and Rescue Communications Center where, if not otherwise occupied, a fire/rescue call-taker answers the call. Should the fire/rescue call-taker also be unable to answer the 911 call, the ACD "stacks" the call in a queue and automatically routes the call to the next available call-taker.

Numbers of Emergency Calls Received in the ECC. Records of calls received in the ECC are maintained by calendar year. At Table 1 (next page) is a record of total calls received for the three most recent calendar years (1990, 1991, and 1992); the breakdown of those calls into the appropriate category; and a further breakdown of the emergency calls that are routed to the Police and the Fire and Rescue Communications Centers, together with the percentage of those calls that resulted in either police or fire and rescue service.

IV. ANNUAL OPERATING COSTS OF THE EMERGENCY COMMUNICATIONS CENTER

A. Overview

Costs to operate the ECC are appropriated in five separate operating budgets: Department of Police, Department of Fire and Rescue Services, Department of Information Systems and Telecommunications, Department of Facilities and Services, and the Management Systems Development nondepartmental account (NDA). Also, expenditures to retire the general obligation bonds that were issued to construct the facility are included in the County's Debt Service expenditures. Revenues are provided from general and special taxes, and are augmented with reimbursements from the State mandated 911 surcharge on the monthly telephone bills. In this chapter, the expenditures by each of the departments, the NDA, and Debt Service are presented, and the 911 systems surcharge is discussed.

B. Cost of the ECC Facility

The total cost to construct the ECC facility will be \$3,090,887. Planning, design, and construction of the facility was \$1,789,088 and bond interest expense will total \$1,301,799.

C. Departmental Expenditures for Operation of the ECC

1. Police Department Expenditures

The Police Department accounts for the largest expenditure by a single department for operation of the ECC, with personnel services (salaries and fringe) comprising the bulk of the expenditure. At Table 2 (page 13) is a history of expenditures for the Police Communications Division for the three most recent fiscal years.

Table 1

**Emergency and Nonemergency/Administrative
Calls Received in the ECC, and Their Distribution
Calendar Years 1990 - 1992**

POLICE COMMUNICATIONS CENTER						
	CY 1990		CY 1991		CY 1992	
	(#)	(%)	(#)	(%)	(#)	(%)
Total of ALL Calls Received in the ECC Through the ACD ^{a)}	796,904	(100)	792,763	(100)	799,384	(100)
Emergency Calls Received over 911 and Other Emergency Lines	449,100	(56.4)	443,288	(55.9)	445,300	(55.7)
Calls Received over Nonemergency/Admin Lines	347,804	(43.6)	349,475	(44.1)	354,084	(44.3)

Total EMERGENCY Calls Received by Police Call-takers:	449,100	(100)	443,288	(100)	445,300	(100)
Calls Retained by Police:	370,762	(82.6)	358,327	(80.8)	362,463	(81.4)
Calls Transferred to F/R:	78,338	(17.4)	84,961	(19.2)	82,837	(18.6)
Calls Retained by Police Resulting in Police Service: ^{b)}	262,282		270,852		282,350	
% of Calls Resulting in Police Service:	70.7%		75.6%		77.9%	

FIRE/RESCUE COMMUNICATIONS CENTER						
	CY 1990		CY 1991		CY 1992	
	(#)	(%)	(#)	(%)	(#)	(%)
Total EMERGENCY Calls Transferred to Fire/Rescue:	78,338		84,961		82,837	
Calls Resulting Fire/Rescue Service:	65,614		66,317		67,960	
% of Calls Resulting in Fire/Rescue Service:	83.8%		78.1%		82.0%	

a) Does not include nonemergency and administrative calls received over the 217 exchange in both the Police and Fire and Rescue Communications Centers.

b) Police service includes calls processed by a patrol officer or processed by the Police Telephone Reporting Unit (TRU).

Sources: Police and Fire and Rescue Communications Center records.

Table 2

Police Communications Division Expenditures
FY91 - FY93

<u>Category</u>	<u>FY91</u> <u>(Actual)</u>	<u>FY92</u> <u>(Actual)</u>	<u>FY93</u> <u>(Budget)</u>
Personnel ^{a)}	\$4,145,005	\$3,941,480	\$4,313,290
Operating Expenses ^{a) b)}	968,666	1,074,436	1,011,540
Capital Outlay	<u>0</u>	<u>0</u>	<u>0</u>
Total:	\$5,113,671	\$5,015,916	\$5,324,830

- a) Personnel (salaries and fringe) and operating expenses are both funded from a combination of general fund tax revenues and 911 system reimbursements from the State. (See Section D, below).
- b) Major categories of expenditures are for C&P Telephone Company 911 telephone equipment rental and maintenance, CAD hardware and software maintenance, and maintenance of terminals used by the police and fire and rescue (PC's) and peripherals.

Source: Department of Police.

2. Department of Fire and Rescue Expenditures

The Fire and Rescue Communications Section accounts for the next largest expenditure, and, as in the case of the Police Department, the major expenditure is for personnel services. At Table 3 is a breakdown of those expenditures for the Fire and Rescue Communications Section for the three most recent fiscal years.

Table 3

Fire and Rescue Communications Section Expenditures
FY91 - FY93

<u>Category</u>	<u>FY91</u> <u>(Actual)</u>	<u>FY92</u> <u>(Actual)</u>	<u>FY93</u> <u>(Budget)</u>
Personnel ^{a)}	\$1,174,195	\$1,170,227	\$1,350,090
Operating Expenses ^{a) b)}	290,150	277,788	281,320
Capital Outlay	<u>0</u>	<u>0</u>	<u>0</u>
Total:	\$1,464,345	\$1,448,015	\$1,631,410

- a) Prior to FY92, personnel (salaries and fringe) and operating costs were funded from general tax revenues. However, since FY92, all personnel and operating costs have been funded from the Special Fire Tax Revenue Fund. (911 system reimbursements are only used to fund police communications operations).
- b) Close to 90 percent of operating expenses are for C&P Telephone Company 911 telephone equipment rental and maintenance.

Source: Department of Fire and Rescue Services.

3. Department of Information Systems and Telecommunications Expenditures

The Department of Information Systems and Telecommunications (DIST) provides support for the ECC in three areas: support of the CAD/911 systems by the Geographic Systems Section; technical support from DIST management through membership on the CAD Coordinating Committee; and support maintenance of radios, consoles, and peripheral equipment located in the ECC and in other facilities and vehicles, and the County's microwave system.

Table 4 reflects DIST expenditures in support of the ECC for the three most recent fiscal years:

Table 4

Department of Information Systems and Telecommunications Expenditures FY91-FY93

	FY91 (Actual)	FY92 (Actual)	FY93 (Budget)
<u>Support of CAD/911 (Geographic Systems Section):</u>			
Personnel (Salaries and Fringe)	\$ 48,740	\$ 67,740	\$ 40,960
Operating Expenses	18,330	12,590	15,000
Capital Outlay	<u>0</u>	<u>0</u>	<u>0</u>
Sub Total:	\$ 67,070	\$ 80,330	\$ 55,960
<u>Management Support (Applications Systems Manager Participation on CAD Coordinating Committee):</u>			
Personnel (Salaries and Fringe)	\$ 7,800	\$ 10,400	\$ 10,400
Sub Total:	\$ 7,800	\$ 10,400	\$ 10,400
<u>Maintenance of Radios, Consoles and Peripheral Communications Equipment (Telecommunication Section):</u>			
Personnel (Salaries and Fringe)	\$415,230	\$428,070	\$441,310
Operating Expenses	588,280	533,250	545,650
Capital Outlay	<u>0</u>	<u>0</u>	<u>0</u>
Sub Total:	<u>\$1,003,510</u>	<u>\$961,320</u>	<u>\$986,960</u>
Grand Total:	<u>\$1,078,380</u>	<u>\$1,052,050</u>	<u>\$1,053,320</u>

Source: Department of Information Systems and Telecommunications.

Management Systems Development Non-Departmental Account

Expenditures. The Department of Information Systems and Telecommunications is also responsible for the Non-Departmental Account (NDA), Management Systems Development. Included in this NDA is funding for a variety of management systems, such as: Human Services Common Intake, Image Processing, Permits, Geographic Information (GIS), and Computer Aided Dispatch (CAD) Mainframe Update.

NDA Management System Development expenditures related to the ECC for the three most recent fiscal years are as follows:

FY91: None

FY92: (Actual) \$ 17,800 to conduct a capacity analysis and long range plan for the CAD system.

FY93: (Budget) \$210,000 for two CAD-related projects:

(150,000 to upgrade the CAD system mainframe computer)

(60,000 to develop a new Fire-Rescue Field Incident Reporting System (FIRS).)

(Budget) \$450,000 to replace the 911 Automatic Call Distributor. A fuller discussion of this expenditure is presented in the next section of the report.

4. Department of Facilities and Services Expenditures

The Department of Facilities and Services (DFS) budgets the costs of utilities and general maintenance and service for the ECC facility. The cost for FY91 approximated \$75,000, while the actual and budgeted costs for FY92-93 are as follows:

Utilities: \$42,440

Maintenance: 22,268

General Services: 10,223

Miscellaneous 199

Total: \$75,130

5. Summary of Annual Operating Expenditures

Table 5 summarizes the annual expenditures to operate the ECC for the three most recent fiscal years:

Table 5

Summary of Annual Operating Expenditures of the ECC
FY92 - FY93

<u>Department/Account</u>	<u>FY91</u> <u>(Actual)</u>	<u>FY92</u> <u>(Actual)</u>	<u>FY93</u> <u>(Budget)</u>
Police	\$5,113,671 ^{a)}	\$5,015,916 ^{a)}	\$5,324,830 ^{a)}
Fire and Rescue	1,464,345	1,448,015	1,631,410
Info Systems & Telecommunications	1,078,380	1,052,050	1,053,320
Management Systems - NDA	0	17,800	210,000 ^{b)}
Facilities and Services	<u>75,000 (est)</u>	<u>75,130</u>	<u>75,130</u>
Total:	\$7,731,396	\$7,608,911	\$8,294,690

a) These expenditures are partially funded from reimbursements from the 911 systems surcharge as follows: FY91 - \$1,494,422; FY92 - \$2,073,439; and FY93 - \$2,034,672. (See next page for a discussion of the 911 system charge reimbursement).

b) Not included is \$450,000 budgeted in FY93 for a replacement Automatic Call Distribution (ACD), and \$16,000 encumbered from FY92 for TDD terminals for the deaf, which will be reimbursed from the State's 911 Trust Fund when the County actually purchases the ACD and TDD terminals.

D. Revenue from 911 System Surcharge

Under State law, (Art. 41, Sec. 18-101, Annotated Code of Maryland), telephone subscribers are assessed a surcharge on their telephone bills to fund the State-wide 911 system. The original 1982 legislation set the basic "911 fee" at 10 cents a month for each telephone subscriber, to be collected by the telephone company as part of its monthly bill for service. The legislation also authorized counties to impose an additional 911 fee, not to exceed 30 cents per month, to help defray maintenance and operating costs of their installed operational 911 systems. Monies collected by the telephone company were deposited (less a service charge) in an account maintained by the State Comptroller. Quarterly, the monies collected were remitted to the County where the fees were collected.

Effective in 1991, the General Assembly amended the 911 legislation to authorize an increase from 30 to 50 cents per month the amount a county may collect in addition to the basic 10 cent 911 fee. However, while the additional fees collected continue to be reimbursed to the counties, the basic 10 cent fee is now retained by the State in a 911 Trust Fund, to be distributed by the State's Emergency Number Systems Board (ENSB) to fund improvements to the 911 system State-wide.

At present, County telephone subscribers are assessed 60 cents on each monthly telephone bill: 10 cents is retained by the State and deposited in the 911 Trust Fund; 50 cents is remitted quarterly to the County. State reimbursements from the 911 fee for the most recent three fiscal years are as follows:

FY91 (Actual):	\$1,494,422
FY92 (Actual):	2,073,439*
FY93 (Budget):	2,034,672**

Also included in the County's FY93 Operating Budget is an expenditure under the Management Systems Development Nondepartmental account of \$450,000 to replace the 911 Automatic Call Distributor (ACD) system. Bids have been received on the ACD and a contract will be awarded soon. The State's Emergency Number Systems Board (ENSB) has already approved reimbursing the County \$450,000 from the 911 Trust Fund for the ACD. In addition to approving the funds for the ACD, the ENSB in FY92 approved \$16,000 for TDD terminals for the ECC. These funds have been encumbered for expenditure in FY93.

* The County Council enacted legislation effective July 1, 1991 (FY92) increasing the additional 911 fee from 30 cents to 50 cents. This resulted in the County receiving an additional \$579,017 911 fee reimbursement.

** Based on the collection of 50 cents in each of 12 months for 339,112 telephone subscribers in the County.

V. ECC ORGANIZATION AND OPERATIONS IN OTHER JURISDICTIONS

As part of this evaluation, OLO visited the communication centers of six local jurisdictions and the Maryland-National Capital Park and Planning Commission. A review of the organization and operations of the seven communication centers indicates that, with the exception that all are staffed predominately by civilian employees, no two are the same.

At Exhibit C is a brief description of the organization and operations of the seven communication centers.

VI. FINDINGS

A. Overview

Based upon OLO's evaluation of the organization, operations, staffing, and management of the County's Emergency Operations Center, OLO findings are addressed in terms of the following three issues:

1. Whether the current organization of the ECC, with its separate Police and Fire and Rescue Communications Centers, should be consolidated into a single organizational entity;
2. If the ECC is consolidated into a single organizational entity, what should be the organization and management structure for that entity; and
3. Should the current practice of staffing fire/rescue communications with career fire and rescue personnel be continued.

- B. Issue #1: Whether the current organization of the ECC, with its separate Police and Fire and Rescue Communications Centers, should be consolidated into a single organizational entity.

Background

The departments of Police and Fire and Rescue Services have always had separate communications centers. Until the 1960s, the one police and two fire/rescue communications centers were not collocated. In the early 1960s, the two were brought together in the shelter under the Council Office Building (COB) as a single Emergency Operations Center. Although collocated, each remained a separate and distinct communications operation. In late 1988, when a new above ground facility was completed adjacent to the COB, and designated the Emergency Communications Center, the police and fire/rescue communications operations were moved into the facility, but again as separate and distinct operations.

Findings

1. **Although organized and operated as separate and distinct organizations, in many respects the police and fire/rescue communications are operationally similar. For example:**
 - a) While both support a department with separate and distinct public safety missions, their communication functions are similar in that both respond to citizen requests for assistance in emergencies that threaten life and/or property: both provide alert notification and information to the operating elements of their respective public safety organizations; and neither exercise command or control over their respective public safety elements. To use a currently popular method of defining service delivery, both the Police and the Fire and Rescue Communications Centers ultimately serve the same primary customer--the citizens of the County.
 - b) Both share telecommunications equipment and peripherals that are maintained by a department other than the Police or Fire and Rescue Services departments;
 - c) Both are high stress operations requiring immediate individual actions and decisions in an environment of high volume telephone and radio traffic, psychological pressure, and physical strain--often involving life and death incidents.
 - d) Both communications centers operate under policies, procedures, and guidelines directed by their respective public safety department, and not developed within the ECC.
 - e) The operations of both communications centers require that the staff possess a similar basic knowledge of telecommunications and automated information processing systems, good communication skills, calmness under stress, and a high level of common sense and practical judgment.

2. **The current bifurcated organization of the ECC has resulted in the following shortcomings:**
 - a) Approximately 20 percent of the emergency calls coming to the ECC are subject to "double queuing". All incoming 911/emergency calls are first answered by a police call-taker, and, for approximately 20 percent of the calls that concern fire, rescue and medical emergency, the incoming call is transferred to a second queue where a fire/rescue call-taker answers and processes the call. Thus, for a fire/rescue emergency, the caller hears two separate rings and must talk to two different operators. A consolidated ECC organization with a single common queue of incoming 911/emergency calls would present the caller with only one ring and call-taker, thereby saving time, albeit a few seconds, in answering and processing calls. Further, having a single call-taking queue would immediately process all incoming emergency calls and electronically direct these calls to either a police or a fire and rescue dispatcher.

- b) Maintenance and operation of the multimillion dollar CAD computer system is "shared" between both communications centers with neither police nor fire/rescue having responsibility for its overall operation. Currently, day-to-day management and service of the CAD system are assigned as additional duties to a police communications civilian employee and a fire/rescue career communications career firefighter/rescuer.
- c) Although both communications centers perform essentially similar communication functions and procedures, using almost identical telecommunication and automated information systems terminals and equipment, each center has its own training officer and conducts its own training program. A consolidated ECC would facilitate the assignment of a single person for training and a single training program.
- d) In both communications centers, personnel performing essentially similar functions in a high-tension environment are in different job classification categories, retirement plans, and bargaining units. Consolidation of the ECC would rectify that.

3. Consolidation of the Emergency Communication Center into a single organization, under one manager, would result in organizational and operational improvements and annual cost savings. For example:

- a) Provide a single, common point where all 911 and other emergency calls are answered and processed, thus eliminating the current procedure where a police 911 call-taker answers all calls, receives information and processes police emergencies, and transfers fire/rescue emergencies to a fire/rescue call-taker for processing.
- b) Eliminate the current bifurcated management of the ECC by providing a single manager of the Center, who would have the flexibility of shifting personnel within the Center to react to periods of high police or high fire/rescue activity.
- c) Reduce to one the current requirement for two supervisory/administrative elements, one in police communications and one in fire/rescue communications. The actual cost saving would depend on which element is eliminated; Table 6, (next page), reflects the estimated annual cost savings depending on which supervisory element is eliminated. The annual saving would average between approximately \$171,000 and \$187,600.
- d) Eliminate the current duplication of functions whereby both police and fire/rescue communications have personnel dedicated to training and CAD system support; and facilitate the development of a single training program for ECC operation, and permit the designation of a single CAD automation systems manager. At this point, any cost savings resulting from these actions cannot be determined because the police communications training function and the police and fire/rescue CAD support functions are all additional duty assignments for communications personnel.

Table 6

**Estimated Annual Cost Savings Resulting From the Elimination of
One of the Two Supervisory Elements
Through Consolidation of the ECC**

Police Communications Supervisory Element

<u>Position/Grade</u>	<u>Average Base Salary^{a)}</u>	<u>+ Average Retirement Contribution^{b)}</u>	<u>+ Social Security Contribution^{c)}</u>	<u>Total</u>
Manager/27	\$64,188	\$8,980	\$4,508	\$ 77,676
Deputy/25	58,903	8,241	4,431	71,575
Office Superv/15	31,603	4,421	2,418	38,442

Total: \$187,693

Fire/Rescue Communications Supervisory Element

<u>Position/Grade</u>	<u>Average Base Salary^{a)}</u>	<u>+ Average Retirement Contribution^{b)}</u>	<u>+ Social Security Contribution^{c)}</u>	<u>Total</u>
Captain/27	\$66,654	\$15,444	\$4,544	\$ 86,642
Lieutenant/24	52,123	12,077	3,987	68,187
Admin Aide/13	13,357 ^{d)}	1,869	1,022	16,248

Total: \$171,077

Notes:

- a) Average salary of all employees in the specific class and grade from Personnel/Payroll Data Base as of December 1992.
- b) Average FY93 County contribution to retirement:
 Groups: A & H - Non-public safety: 13.99%
 Groups: B, E, F, & G - Public Safety: 23.17%
- c) County's contribution to Social Security is based on CY93 requirements of 7.65% of base salary up to \$57,700, plus 1.45% above \$57,700.
- d) Reflects one-half of the average base salary because the Principal Administrative Aide position is budgeted in FY93 at .5 WY.

- e) Permit collocating ECC call-takers and police and fire/rescue dispatchers on the same floor of the ECC facility, with a possible reduction in call-taker/dispatcher shift supervisors, and improved the utilization of space in the ECC facility.
- f) Facilitate placing all ECC personnel in a common job classification series and retirement program, thereby providing a single career ladder, enhancing career progression, and improving employee morale.

4. Local jurisdictions in the Washington-Baltimore area have consolidated emergency communications operations.

OLO visited the emergency communications facilities of six jurisdictions in the immediate area, and the Maryland-National Capital Park and Planning Commission Police. Four of the jurisdictions have consolidated their communications operation. The other two have not consolidated and the commission has no fire/rescue responsibilities. A brief description of the seven can be found at Exhibit C.

5. Prior to any consolidation, the following actions should be accomplished:

- a) Develop a thorough plan and timetable for the consolidation, with input from all departments/agencies that are served by the ECC, and provide support to ECC.
- b) Develop formal memoranda of understanding between the ECC and the public safety agencies served by the ECC to assure an optimum level of customer service to those agencies.
- c) Develop appropriate modifications to the County's classification and compensation plans to reflect changes in the occupational series, retirement categories, and bargaining unit affiliation necessitated by consolidation of ECC operations.
- d) Develop and implement a formal training program that will prepare and certify communications personnel to perform the operational functions of a consolidated ECC. Special emphasis must be placed on establishing an appropriate level of emergency medical and CPR training to qualify all ECC personnel to provide pre-arrival medical instructions.
- e) Purchase CAD training software developed specifically for the County's upgraded CAD computers.
- f) Modify the physical layout of the ECC facility as required.
- g) Consider performing a queuing study of the consolidated ECC operations to determine an optimum staffing level.

- C. **Issue #2: If the ECC is consolidated into a single organizational entity, what should be the organization and management structure for that entity.**

Background

Should the decision be made to consolidate police and fire/rescue communications into a single organization, a decision must also be made concerning where in the Executive Branch the consolidated ECC should be placed. OLO considered four possible organizational arrangements:

1. Place in the Police Department;
2. Place in the Department of Fire and Rescue Services;
3. Create an independent stand-alone organization; or
4. Place in another Executive Branch department/office.

Visits by OLO to ECC operations in several local jurisdictions reveals a mix of organizational arrangements. In Baltimore County, the ECC is in the Department of Central Services; in Howard County, the ECC is temporarily under the Chief Administrative Officer but by law will be in the Department of General Services; in Fairfax and Arlington counties, the ECC is in the Police Department; in Loudoun County, the ECC is in the Department of Fire and Rescue Services; and in Prince George's County, separate police and fire/rescue communications report to their respective public safety agency.

The final determination of the placement of a consolidated ECC will require indepth study and discussion by the Executive and Council. Presented here are OLO's analyses and findings on the issue.

Findings

1. **A consolidated ECC should not be placed in either the Police Department or the Department of Fire and Rescue Services.**

Factors mitigating against consolidating ECC under either the Police Department or the Department of Fire and Rescue Services include:

- a) Representatives of both the Police and Fire and Rescue Communications Centers are satisfied with the current arrangement whereby each operates as a separate communication activity. These same representatives opine that, because of a long history of independent operations and authority, consolidation under one of the public safety agencies would not be accepted by the other.
- b) There is general agreement among police and fire/rescue communications representatives OLO interviewed that, depending upon which of the two departments (police or fire/rescue) is selected for overall management of a consolidated ECC, personnel of the non-selected department would feel "second class" and not feel any sense of identity with the selected department.

- c) Although consolidation of ECC operations under one of its two agencies appears to be a logical possibility, because of the historic independence of both police and fire/rescue operations, no attempt has been made to consolidate any phase of their operations--even alert notification. In the past, the issue has never been officially examined despite opportunities . Twice in recent years police and fire/rescue communication functions have moved into a common facility. In both instances, the issue of consolidating their individual communication operations was not addressed. Likewise, when police communications staffing changed from sworn career officers to civilian employees, and later when fire/rescue communications changed from civilian employees to career firefighters, the issue of consolidating their independent communications operations was again not addressed.
2. **Establishing a consolidated ECC as an independent, stand-alone activity is feasible and would provide for management efficiencies. However, the current organizational and management philosophy of the Executive Branch is to reduce the number of independent departments and offices. Should that philosophy change, an independently organized ECC should be considered.**

Factors favoring establishing a consolidated ECC as an independent, stand-alone activity include:

- a) ECC is primarily a communications operation, not a command and control operation for which police and fire/rescue must retain direct supervision. Although the tactical missions of police and fire/rescue differ, alert notification to their elements is compatible. As is currently the policy, tactical operational decisions regarding operations performed by field personnel of both the Police and Fire and Rescue departments would not be made by ECC personnel.
- b) The mission of the ECC is unique. The Center is the central receiving point for all emergency calls and is the alert notification and communications center for all public safety agencies in the County.
- c) In recent years, communications operations has become recognized as an independent professional career field, with exacting standards of performance and professionalism.
- d) Creating an independent, stand-alone activity would avoid the "turf" problems that apparently would arise if a consolidated ECC were to be placed under either the Department of Police or the Department of Fire and Rescue Services.
- e) Organizing the ECC as an independent entity would facilitate future consideration of combining Emergency Management activities and ECC operations into a single emergency communications organization, thereby placing the two emergency-related operations for which the CAO is responsible, directly under his control and supervision.

3. **Should the concept of an independent, stand-alone activity not be accepted, the consolidated ECC should be placed in the Department of Information Systems and Telecommunications (DIST).**

Factors favoring assignment of ECC to DIST include:

- a) DIST is the Executive Branch department responsible for information systems and telecommunications, the essential equipment of modern emergency communications. As stated earlier in the report, DIST is responsible for the maintenance of all radios, consoles, and peripheral equipment installed in the ECC and in all public safety vehicles. DIST is also responsible for maintenance of the County's microwave system that links communications. Neither the Police nor the Fire and Rescue departments are in the telecommunication and emergency information processing business.
- b) Under DIST management, the ECC would continue to operate under policies and standard procedures dictated by the Departments of Police and Fire and Rescue Services. Currently, police communications operate under a Department of Police Field Operations Manual Function Code 252; and fire/rescue communications operate under a Communications Policies and Procedures Manual, approved by the Fire and Rescue Commission.
- c) DIST is highly involved in the ECC already. DIST has played an integral role in the planning and installation of the CAD system. A member of DIST chaired the CAD Coordinating Committee, which had responsibility for the design and upgrading of the CAD system in the ECC. Also, DIST currently has responsibility for maintenance of other automated information systems that support ECC operations.
- d) As in the case of creating an independent ECC organization, placing ECC operations in a neutral department would avoid the almost certain "turf" problems that would arise if a consolidated ECC was placed under either the Police Department or the Department of Fire and Rescue Services.

D. Issue #3: Should the current practice of staffing fire/rescue communications with career fire and rescue personnel be continued.

Background

As discussed earlier in the report, currently police communications is staffed entirely by civilian non-public safety employees and fire/rescue communications is staffed by career public safety firefighters/rescuers. The current staffing arrangements have not always been such. In the early 1960s the Police Communications Center began a conversion from sworn career staffing to civilian technicians. The conversion was completed in 1989 when a civilian manager replaced the sworn police captain. Prior to the mid-1970s, the Fire and Rescue Communications Center was staffed by civilian employees; however, after the Department of Fire and Rescue Services was created, the civilian communications positions were changed to career firefighter positions.

Findings

1. **The current practice of staffing call-taker, dispatcher, and supervisory positions in fire/rescue communications with career fire and rescue personnel should be discontinued and the career positions changed to civilian non-public safety positions.**

Earlier in this report, OLO recommended that the Emergency Communications Center be consolidated into a single entity under civilian supervision. Whether that recommendation is approved or not, career staffing of fire/rescue communications should be changed to civilian staffing. Outlined below are OLOs detailed findings relating to the change.

2. **Several factors support a change from career to civilian staffing in fire/rescue communications.**

- a) Experience in other jurisdictions clearly demonstrates that personnel assigned to fire/rescue communication duties do not have to be career public service firefighter/rescuers. Of seven local emergency communication centers surveyed by OLO, all were staffed by non-public safety civilians as call-takers, police dispatchers, and fire/rescue dispatchers. (See Exhibit C).

- b) Annual personnel cost savings of approximately \$130,700 could be accrued by changing from career to civilian staffing in fire/rescue communications. As reflected at Exhibit A, the average salaries for the public safety (career) positions in fire/rescue communications is relatively similar to the non-public safety (civilian) positions in police communications. However, there is a significant difference between the County's contribution to the retirement of public safety and its contribution for non-public safety employees. At Table 7 the average salaries/fringe for all 22 career positions in fire/rescue communications is compared to what the average salaries/fringe would be if they were changed to non-public safety civilian positions at grades comparable to those currently assigned in police communications.

- c) Career firefighter/rescuers are required to meet high standards of physical health and agility, are provided extensive technical training, and classified in compensation and retirement categories that reflect the difficulty and risk of firefighting and rescuing. Most of these training requirements are not appropriate or necessary to perform communications functions. In OLO's opinion, to assign career firefighters/rescuers to perform communication duties in the ECC is not cost effective.

- d) Changing all positions in the ECC to civilian, non-public safety positions would facilitate creation of a separate emergency communications job classification series. The number of positions in a consolidated, all-civilian emergency communications center (approximately 120), and the variety of job assignments (call-taker, dispatcher, training officer, supervisors, etc.), would constitute a discrete career class, and would enhance career progression, with an attendant improvement in emergency communications employee morale.

Table 7

**Comparison of Personnel Costs (Salaries/Fringe)^{a)}
Between Career (Public Safety) and Civilian (Non-Public Safety)
Positions of Comparable Grade in the ECC**

Current Fire/Rescue Communications Public Safety Positions				Comparable Civilian Positions Currently in Police Communications				Difference (%)
Position Title (Grade)	Average Salary/ Fringe	# Pos	Total Salary/ Fringe	Position Title (Gr)	Average Salary/ Fringe	# Pos	Total Salary/ Fringe	
Captain (27)	\$86,642	1	\$ 86,642	Mgr (27)	\$ 77,676	1	\$ 77,676	-\$8,966 (10.3)
Lieutenant(24)	68,187	1	68,187	Asst M(25)	71,575	1	71,575	+3,388 (5.0)
Sergeant (20)	55,914	4	223,656	PT Sup(20)	51,507	4	206,028	-17,628 (7.9)
Master FF (F4) ^{b)}	53,729	4	214,916	PT III(19)	46,656	4	186,624	-28,292 (13.2)
FF/R-II & III (F2 & F3) ^{c)}	39,913	12	478,956	PT II (17)	33,313	12	399,756	-79,200 (16.5)
			\$1,072,357				\$941,659	-\$130,698 (12.2)

Notes:

- a) See Exhibit A for details on average salaries and fringe components.
- b) The salary schedule of a Master Firefighter, Grade F4 is equivalent to Grade 19 in the general salary schedule for a Police Technician III.
- c) The salary schedule of the Firefighter/Rescuer Grade F2 and F3 are equivalent to Grades 16 and 17 on the general salary schedule. A Police Technician I is a Grade 15, and a Police Technician II is a Grade 17.

3. **Several conditions must be met prior to changing the positions in fire/rescue communications from public safety to non-public safety. The following are minimum conditions:**
- a) Develop a thorough plan and timetable for the change, with input from all appropriate departments/agencies.
 - b) Execute a formal memorandum of understanding between ECC management and the Department of Fire and Rescue Services (DFRS) (and the Fire and Rescue Commission), outlining the policies and procedures to be followed in the ECC in processing and dispatching fire/rescue emergencies.
 - c) Develop and implement a formal training program that will prepare and certify civilian communications personnel to perform the functions required to receive and process emergency calls and dispatch fire/rescue apparatus. As recommended earlier in this report, all ECC personnel should be trained in emergency medical and CPR procedures so as to provide pre-arrival medical instructions.
 - d) Evaluate the necessity of detailing a DFRS liaison officer to the ECC for a specified period of time.
4. **A number of arguments against changing from career to civilian staffing in fire/rescue communications have been proffered by representatives of fire/rescue communications. Some of the major arguments against the change, together with OLO comments, include:**
- a) **Argument.** Because fire/rescue communications functions are different from communication functions performed by civilians in police communications, only a career firefighter/rescuer can be call-takers and dispatchers for fire/rescue/medical emergencies. Examples of these differences include: more training is required in fire/rescue communications, such as pre-arrival medical and CPR training; in contrast to police communications, fire/rescue communications deal with "real" emergencies under more stressful circumstances; and, again unlike police communications, career personnel in fire/rescue communications interact with the actual incident process and provide support to the fire/rescue incident commander.

Comment

Pre-Arrival Medical Training. OLO agrees that training in CPR and pre-arrival medical procedures for fire/rescue communications personnel is necessary. However, as recommended earlier in this report, all personnel assigned to ECC should receive that training.

"Real" Emergencies. As reflected in Table 1 and discussed earlier in the report, the Fire and Rescue Communications Center receives approximately 18 percent of the 911/emergency calls, and over 80 percent of those calls result in some level of fire/rescue service, almost always as an immediate emergency response. Of the remaining 82 percent of the incoming 911/emergency calls retained in police communications, just under 75 percent result in police

service. Types of police service include: immediate emergency police response; actions by the police Telephone Reporting Unit (TRU); and routine responses on a non-emergency schedule by patrol officers. Thus, it is probably accurate that a higher percentage of fire/rescue responses are of an immediate emergency nature. However, it is not accurate to imply that fire/rescue communications differ from police communications, or that fire/rescue communications and must be staffed by career fire/rescue personnel because its emergencies are more "real". Finally, there is no evidence to support the argument that fire/rescue communications is a more stressful environment than police communications.

Interact with Incident Process and Commander. Several representatives from fire/rescue communications argued that fire/rescue communications personnel must be career firefighters/rescuers because they are required to make critical decisions when they interact with the actual incident process and with the incident commander. One example of this interaction that was cited was the transferring and positioning of apparatus. Another was "tailoring" a response to meet a specific incident. From these and other cited examples, OLO does not consider this a critical argument against civilian staffing. First, the representatives proffering the argument conceded that the interaction is fairly infrequent, occurring on the average of only once a day. Second, the types of interaction cited can be included in standard communications procedures developed by the Department of Fire and Rescue Services (DFRS) and made a matter of training for civilian fire/rescue dispatchers. Finally, from OLO interviews, fire/rescue field personnel do not place the high emphasis on ECC's interaction with their incident operations as the representatives from fire/rescue communications would suggest.

- b) Argument. Changing from career to civilian positions in fire/rescue communications would eliminate a large pool of career firefighters/rescuers that can be assigned to fire/rescue communications; and the ability for DFRS to laterally transfer career employees to fire/rescue communications for "diverse experience and scenery change" would be denied.

Comment

OLO agrees that there is a large pool of career firefighters/rescuers from which personnel to work in fire/rescue communications can be drawn. However, one should not infer that the personnel in the pool are not specifically prepared to function efficiently in fire/rescue communications. The only training that personnel in the pool receive in rookie school that prepares them for an assignment to fire/rescue communications is in CPR/Emergency Medical Technician (EMT), and a brief orientation on ECC operations. When a career firefighter/rescuer is assigned to fire/rescue communications, either directly out of rookie school or from a field assignment, that person is required to go through an extensive period of on-the-job training in the Fire and Rescue Communications Center to acquire specific fire/rescue communications skills before assuming duties. Any civilian assigned to a consolidated ECC would also be required to be certified in CPR, receive an

appropriate level of pre-arrival medical training, and receive communications training. However, the County would not be making the added investment of providing the civilian communications employee hundreds of hours of fire/rescue technical training.

OLO agrees that changing to civilian positions in fire/rescue communications would deny DFRS the ability to laterally transfer career employees to communication duties for "diverse experience and scenery change". However, in the opinion of OLO, emergency communications is not a critical skill that firefighters/rescuers must have to efficiently and effectively perform their basic career duties of fire, rescue, and emergency medical service.

- c) **Argument.** Changing from career positions to civilian positions is not cost efficient because: career communications personnel work a 42-hour work week while civilian communications personnel work a 40-hour work week; and civilian communication employees have a higher turnover rate.

Comment

OLO agrees that there is a two-hour difference in the work week of career fire/rescue communications personnel and civilian personnel in police communications. However, this should not influence a decision to replace career fire/rescue personnel with civilians. Under the current Agreement between the County and the Career Firefighters Association, Local 1664, employees in the bargaining unit work a variety of hours, depending on the specific assignment. Career employees detailed to the Fire and Rescue Communications Center work a 42-hour work week. Career firefighters/rescuers in the bargaining unit work a 40-hour work week when assigned to the Training and Fire Prevention Divisions, and a 48-hour work week when assigned to the Bureau of Operations in DFRS.

As for turnover rate, the Personnel Department reports that the turnover rate for civilian communications employees in the Police Communication Center is not significantly different from that of County employees as a whole.

- d) **Argument.** The poor design of the present ECC facility does not offer sufficient space to have police and fire/rescue dispatch operations in one area.

Comment

This argument was also made against consolidating ECC operations. If the ECC is not consolidated, the argument is moot, for civilian fire/rescue communications personnel would probably remain on the third floor. However, in the opinion of those currently occupying the first floor, there is sufficient room to accommodate the additional consoles and terminals necessary for fire/rescue communications activities.

VII. RELATED MATTER

In the course of an OLO evaluation, matters that are not within the specific scope of the subject but are related and sufficiently important to merit comment are included in its OLO report. One such matter is presented below:

Back-up Emergency Communications Center

Background

In a May 1984, report on the County's 911 Emergency Service and the Emergency Operations Center (EOC), OLO concluded that the working environment of the EOC in the former bomb shelter under the Council Office Building (COB) presented a serious health hazard and contributed to low morale of police and fire/rescue communications personnel working there. Another conclusion in the OLO report was that the County lacked a back-up communication center should the primary ECC become non-operational. In reaction to the report, a study was initiated and it was concluded that a new above-ground facility adjacent to the COB should be constructed. That facility was approved and was built and occupied in 1988.

Much of the County's 911 emergency telephone service (lines, switches, etc.) and other sensitive electronic communications equipment necessary to the operation of the new ECC remained in the underground facility. To guarantee the continued operation of this sensitive electronic equipment, it was also decided that minimum improvements must be made to the facility so that it could be used as a back-up communications center to the new ECC.

Findings

The current condition of the underground facility is such that OLO seriously doubts it can function as a back-up ECC. Contrary to original plans, ECC personnel have not periodically moved to the underground facility to maintain their proficiency to operate outside the ECC without the benefit of the CAD system and the automatic number identification (ANI) and automatic location identifier (ALI), all of which only operate in the primary ECC.

A recent internal Executive Branch study by an Emergency Communications Center Back-up Committee confirmed that a back-up ECC facility is still necessary to ensure uninterrupted emergency communications operations and to serve as an Emergency Management Center in the event of a natural or man-made disaster.

A CIP project was approved in FY90 and \$265,000 was appropriated to repair and upgrade the HVAC equipment, replace the ceiling and lighting, and make structural and floor repairs in the underground facility. To date, that work has not been performed and \$258,156 remains in the appropriation. The CIP project (#901119, EOC HVAC Replacement) is currently reflected in the Recommended FY94-99 CIP program as "pending closeout".

Recommendation

The Executive should direct that a plan be developed to complete the approved CIP project of repairing and upgrading the underground facility so as to ensure functioning of the sensitive electronic equipment located there, and provide a usable back-up emergency communications facility. An additional benefit in upgrading the underground facility and equipment would be that it could serve as a training center for ECC personnel.

VIII. CONCLUSIONS

A. Consolidation of the current separate Police Communications Center and Fire and Rescue Communications Center into a single Emergency Communication Center is feasible.

1. Consolidation would accomplish the following:
 - a) Eliminate "double queuing". Consolidation would result in a single, common point where all 911 and other emergency calls are answered and processed, thereby eliminating the necessity of transferring 911/emergency calls for fire/rescue service to a second call-taker.
 - b) Replace the current bifurcated management of the ECC with a single manager.
 - c) Reduce the current requirement for two supervisory/administrative elements within the ECC, one for police communications and one for fire/rescue communications. The estimated annual saving, based upon the elimination of three positions (supervisor, deputy and administrative, would be between \$171,000 and \$187,600, depending upon which supervisory element is eliminated (Table 6).
 - d) Eliminate the current duplicate staffing for training in the ECC. Cost savings would have to be determined after action is taken in that training staff in fire/rescue communications is a full-time position, while in police communications it is an additional duty assigned to a Police Technician.
 - e) Provide for a single CAD systems manager to replace the current arrangement whereby both police and fire/rescue communications have staff assigned, as an additional duty, and informally share responsibility for the CAD system. The cost implications of returning police and fire/rescue communications personnel to their primary duties and creating a CAD systems manager position would have to be determined.
 - f) Permit collocating ECC call-takers and police and fire/rescue dispatchers on the same floor of the ECC facility, with a possible reduction in call-taker/dispatcher shift supervisors.
 - g) Facilitate placing all ECC personnel in a common job classification series and retirement program, thereby providing a single career ladder, enhancing career progression, and improving employee morale.

2. Prior to consolidation, the following actions should be accomplished:

- a) Develop a plan and timetable for the consolidation;
- b) Execute formal memoranda of understanding between the ECC manager and the public safety agencies;
- c) Develop a formal training program for all operations of the consolidated ECC;
- e) Complete necessary modifications to the physical layout of the ECC;
- f) Complete a queuing study of the consolidated operations to determine optimum staffing; and
- g) Develop a classification and compensation plan to reflect changes in the occupational series, retirement categories, and bargaining units of a consolidated ECC.

B. The optimum organizational arrangement for the consolidated Emergency Communications Center (ECC) would be an independent, stand-alone activity, reporting directly to the Chief Administrative Officer.

1. If the Executive Branch's current organizational and management philosophy of reducing the span of control of the Chief Administrative Officer precludes creating an independent ECC activity, the consolidated ECC should be placed in the Department of Information Systems and Telecommunications.
2. The consolidated ECC should not be placed in either the Department of Police or the Department of Fire and Rescue Services.

C. It is both feasible and practical to change the current designation of positions in the Fire and Rescue Communications Center from career, public safety positions to civilian, non-public safety communications positions.

1. Changing from career public safety positions to civilian non-public safety communications positions would result in annual personnel savings of approximately \$130,700 (Table 7).
2. Changing to civilian, non-public safety positions would free career firefighters/rescuers to perform duty assignments that require the technical skills and involve the risk for which they are trained and compensated.
3. Prior to changing from career public safety positions to civilian non-public safety communications positions, the following minimum conditions should be met:
 - a) Develop a plan and timetable for the change;
 - b) Execute a formal memorandum of understanding between ECC management and the Department of Fire and Rescue Services (DFRS) that addresses the policies and procedures to be followed in ECC when processing and dispatching fire/rescue apparatus;

- c) Develop and implement a formal training program to certify all civilian communications personnel to perform the functions required to receive and process fire/rescue emergency calls, dispatch fire/rescue apparatus, and provide pre-arrival medical instructions; and
- d) Evaluate the necessity of detailing to the ECC for a specific period of time a DFRS liaison officer.

IX. RECOMMENDATIONS

- A. The separate Police Communications Center and Fire and Rescue Communications Center should be consolidated into a single Emergency Communications Center.
- B. The consolidated Emergency Communication Center should be organized as an independent, stand-alone activity, reporting directly to the Chief Administrative Officer. Should that organizational arrangement not be acceptable to the Executive Branch, the consolidated ECC should be placed in the Department of Information Systems and Telecommunications.
- C. The current positions in the Fire and Rescue Communications Center that are designated as career, public safety positions should be changed to civilian, non-public safety communications positions.

X. COMMENTS ON THE DRAFT REPORT

OLO circulated a draft of this report to the Chief Administrative Officer and the directors of the appropriate Executive Branch departments, the Fire and Rescue Commission, the chairman of the Chiefs' Committee and Presidents' Committee, the President of the Volunteer Fire and Rescue Association, the Career Fire Fighters and Officer's Associations, and other interested parties. Technical comments received orally have been incorporated into this final report.

Beginning on the next page are the written comments in their entirety that were submitted by the following agencies:

- Chief Administrative Officer
- Director, Department of Fire and Rescue Services
- Director, Department of Police
- Director, Department of Information Systems and Telecommunications
- Chairman, Montgomery Fire and Rescue Commission
- Director, Office of Management and Budget
- County Attorney
- Chairman, President's Committee
- Bethesda Fire Department
- M. C. Career Fire Fighters Association
- M. C. Career Fire-Rescue Officers's Association
- A Fire and Rescue Commissioner



Montgomery County Government
ROCKVILLE, MARYLAND 20850

MEMORANDUM

March 23, 1993

TO: Andrew Mansinne, Jr., Director
Office of Legislative Oversight

FROM: William H. Hussmann *WH*
Chief Administrative Officer

SUBJECT: DRAFT OLO Report #92-5, The Organization and Management of the Montgomery County Emergency Communications Center

Thank you for the opportunity to comment on the Draft OLO Report #92-5 The Organization and Management of the Montgomery County Emergency Communications Center. This report provides an objective analysis the organization, operations, staffing, and management of the County's Emergency Communications Center. The comments from the Departments of Fire and Rescue Services, Police, and Information Systems & Telecommunications; the Fire and Rescue Commission, the Offices of Management & Budget, and the County Attorney's Office are attached.

The Executive Branch looks forward to discussing OLO Report #92-5 upon its release by the County Council. Thank you again for the opportunity to comment.



Montgomery County Government

MEMORANDUM

March 18, 1993

TO: Andrew Mansinne, Jr., Director
Office of Legislative Oversight

FROM: Ramon F. Granados, Director *Ramon F. Granados*
Department of Fire and Rescue Services

SUBJECT: Comments - Draft OLO Report 92-5:
The Organization and Management of the Montgomery County Emergency Communications Center

I have carefully reviewed your draft report for the proposed organization and management of the Fire/Rescue and Police Emergency Communications Centers. I feel that you have provided a thorough report on this vital public safety element, though I would like to comment on points which we feel are not fully explored or where we find that our research did not report the same observations. I believe the these differences in observations, coupled with the additional information we have provided, will guide the reader toward an objective view, and a more accurate conclusion.

As I am certain you have anticipated, our Department is not in favor of your proposals. As I indicate in my comments and hope to be able to present in discussions with the County Council, we know our Department presently has a cost effective and efficiently run ECC which has been tailored over the years to provide quick response to the citizens of Montgomery County, as well as supporting the sensitivities and mission of our unique fire and rescue delivery system. We feel the uniqueness of our Fire and Rescue System demands a communication center staffed and operated as currently configured.

I am proud to frequently hear from peers in other jurisdictions who wish they still had the resources of a center such as ours.

Please feel free to contact me should you have any questions.

RFG/msb
Attachment

COMMENTS:

OLO REPORT #92-5

The following comments are provided in response to OLO Draft Report 92-5, The Organization and Management of the Montgomery County Emergency Communications Center (ECC) from the Department of Fire and Rescue Services.

We see no need to comment on Sections I and II of the report.

III. Current organization, management and operation of ECC.

A. Overview

A description in this section characterizes the Police as occupying the 1st and 2nd floors of the ECC stand alone facility. This is not totally true since the greatest portion of the ECC 2nd floor is occupied by common areas such as a kitchenette and lounge (used by both departments), the CAD common equipment room, a telephone central cable terminal room, and an electrical terminal and switch room. The Police use a small section of the 2nd floor for their division administrative center.

B. Police Communications Center

2. Operations

In this section, there is a description of Police ECC operations. One operation is described as answering all 9-1-1 calls. The call taker answers both Police 9-1-1 and Fire/Rescue 9-1-1 calls. While it is recognized that the mission and objective would include answering all 9-1-1 calls, this is not entirely the case. As noted later in the OLO report, Fire/Rescue ECC answer 9-1-1 calls when all of the available Police call takers are occupied. Frequently, Fire/Rescue observes an increase of these first opportunity 9-1-1 calls during the normal peak incident activity times of mid-day, 1100 to 1300 hours, and early evening, 1600 to 1900 hours. During storms and other emergencies, this situation is even more obvious.

C. Fire and Rescue Communications Center

1. Organization/Staffing -

In discussions of configuring the Fire/Rescue ECC consoles, the information should reflect that all positions have equipment to serve as 9-1-1 answering points.

2. Operations -

ECC personnel engage in direct contact with neighboring jurisdictions within the region on a frequent basis. In most cases, these contacts involve requesting or supplying mutual aid resources to one or more of the jurisdictions contiguous to Montgomery County.

Under Other Operational Responsibilities:

Fire/Rescue ECC

- Maintains remote CAD hardware terminals at all fire stations, federal installations, hospitals and DFRS remote sites.
- Maintains hardware and software relating to CAD in the ECC.
- Provides inventory and coordination for all fire/rescue radio hardware and accessories.
- Answers 82 distinct and separate telephone lines relating to emergency and non-emergency calls.
- Provides key personnel to Emergency Management for disaster operations.
- Performs specific disaster related duties/responsibilities as outlined in numerous Montgomery County manuals and regulations.
- Serves as key clearing house and coordination for all fire/rescue service radio repair needs.
- Participates in National Area Warning and Alerting System, (NAWAS). This network provides alert awareness information pertinent to weather disasters effecting the region.
- Participates in the Metro Washington Area - Fire Mutual Aid Radio System (FMARS).
- Maintains and inputs geographical data base for new and closed streets.
- Provides statistical reports daily for the various divisions of Fire/Rescue, as well as annual data statistics to various state level agencies.
- Performs a number of functions directly related to the determination of fire/rescue response areas, including determining box areas, company response requirements and recommendations, etc..
- Anticipates and provides special and additional resources which are likely to be requested by on scene fire/rescue personnel. In some cases, the ECC initiates these changes prior to field request, based on the nature and state of the emergency.

- Develops requirements and specifications for all fire/rescue related radio hardware.
- Provides central distribution for storing, distributing and inventory control of all fire/rescue radios, paging equipment and peripheral equipment.
- Provides staff and actively participates in the Fire/Rescue Commission Communications Subcommittee.
- Assists the entire fire/rescue service in recommending appropriate enhancements to current equipment and procedures.
- Provide oversight and direct operational frequency discipline over all radio frequencies. This includes actual supervisory control over operations involving radio use by fire/rescue operational forces.

I feel that the general category of "other" operational responsibilities does not adequately capture the actual impact of many contributions and responsibilities of the Fire/Rescue Communications Center. The Fire/Rescue ECC is an integral component of fire and rescue operations. Although the resourcefulness of the ECC is well recognized by fire/rescue personnel, section 4 of the findings on page 29 of the OLO report does not reflect this extensive level of contribution by the ECC.

D. Department of Information Systems and Telecommunications

Section #1 Organization, Staffing and Support Services.

Bullet #1. Fire/Rescue ECC staff, through Fire/Rescue Commission direction, coordinates and maintains inventory control of fire/rescue pagers, portable radios, battery chargers and peripheral communications equipment.

Bullet #3. DIST clearly maintains data storage, however, Fire and Rescue accesses and formats output of management reports on the mainframe IBM computer.

Bullet #5. At a minimum, Fire and Rescue and Police have an equal, if not greater, direct involvement in the CAD Coordinating Committee than DIST.

E. Integrated Operations of the Emergency Communications Center.

#2 - Current Operating Procedures

It is important to note that due to the frequent requests for public safety services (police and fire), it is not possible for the Police 9-1-1 call takers to field all of the incoming calls. When this occurs, especially during peak incident activity, Fire and Rescue ECC personnel also answer 9-1-1 calls. During the peak Police call periods, Fire/Rescue ECC personnel have the "First Opportunity" to directly screen and dispatch critical fire and rescue calls without delay.

2. Fire/Rescue Emergency

In the process of recording the appropriate information, the Firefighter/Rescuer call taker must decide what type of response is sent to the emergency. Because of the call taker's background and training as a Firefighter/Rescuer, he/she is able to select the most appropriate and cost effective arrangement of response. He/she is empowered with authority to perform this task. This empowerment is critical, since recent budget cuts have left the Fire/Rescue ECC with insufficient staffing and, frequently, the Supervisor must

serve as the third call taker. In many centers, there is a standard response assignment determined ahead of time for a selected number of incident types. In these cases, every call receives the maximum response of fire/rescue apparatus (known as a full assignment). This eliminates the need for the non-firefighter/rescuers to make a tailored response decision. It appears that a number of the large Washington/Baltimore area fire departments tend to dispatch more apparatus than necessary, because they lack the necessary confidence in their civilian dispatchers to make the appropriate apparatus dispatch adjustments.

With an average of twenty reduced (adapted) assignments each day in Montgomery County, our Firefighter/Rescuer-staffed dispatch center saves the County money by reducing the number of responding apparatus. Additionally, this action allows the other units to be available for response should they be needed elsewhere. Adapted responses were first instituted in 1973, when the United States faced an unprecedented energy crisis. We feel that this system has worked well and has easily saved millions of dollars in the twenty years since it was adopted. It would not be difficult to assess the difference in increased cost associated with current dispatching of about 700 full assignment alarms per year (our present number) to dispatching approximately seventy-three hundred full assignments per year (the number of adapted response which would become full assignments in a civilian center).

Numbers of Emergency Calls Received in the ECC

Fire/Rescue calls are usually classified as emergencies in progress. These events require some level of active intervention to control the dangerous and intensifying chain of events. These incidents frequently require a continual, interactive relationship between dispatch and field operations units. Generally, Fire/Rescue operations are sustained on the scene for a matter of minutes or hours, depending upon the nature and complexity of the incident. Although the police-type calls also can result in on-scene time ranging from minutes to hours, the frequency is much less than Fire/Rescue. In either scenario, the Fire/Rescue dispatcher plays a more interactive and dynamic role than the police dispatcher. This is a product of the nature of the respective services and on-scene incident mitigation procedures.

V. ECC Organization and Operations in Other Jurisdictions

As indicated in the report "no two (centers) are the same". This characteristic can be observed both nationally and internationally. Much of the influence on development of a specific jurisdiction's center depends greatly on the influence of the service which it supports. In speaking with Chief David Gratz (Ret.), who is an internationally respected Fire/Rescue consultant, there is an even distribution of uniform and civilian centers. Additionally, there are many centers which are staffed by a combination of the two staffing choices noted in the OLO report. The London, England metropolitan area has a huge center, which processes over 250,000 fire and rescue incidents each year. The London Communication Center uses a staff of operational firefighters. New York City Fire Department operates a center which uses a combination of civilian employees and light duty firefighters.

During our research, we discovered that while many centers have evolved from uniform to civilian staffing, some of these centers have remained civilian, while others have reverted back to uniformed personnel. Most fire officers polled indicated displeasure with their civilian center. In Anne Arundel County, Maryland, there was a plan to civilianize the communications center. The plan began by using civilians in the call taker position. For unknown reasons, they have abandoned this plan and now, through attrition, will revert back to uniform staffing. A

recent conversation with personnel in the Fire Chief's office of the London, Ontario, Canada Fire Department, revealed that after going to all civilian staffing in their 9-1-1 center, they now allow operational fire fighters to apply for vacancies in the center.

In discussions with representatives of other regional fire/rescue systems, field fire/rescue personnel in some of the jurisdictions who have the civilian centers, commented, that they were highly dissatisfied with their present fire/rescue dispatch function. Howard County and Baltimore County representatives were the most vocal. In Baltimore County a team consisting of a Fire/Rescue Captain, 3 Lieutenants and 3 Firefighters are assigned to the communications center on a 24-hour basis. Their function is to provide decision making and oversight because the arrangement of the civilian based center was not satisfactory. Obviously, there is a large added expense required to fund the fire department personnel permanently assigned to this function.

The managers of Arlington County and Fairfax County fire/rescue and police communications centers, stated that a move to civilianization and/or consolidation of Fire and Police dispatch is not one that should be based on saving money. They both stated that their moves away from uniformed personnel were not based on economics. Fairfax County, like Baltimore County and Prince George's County, felt it was necessary to assign fire department management and supervisory personnel to the communications centers in their jurisdiction to make the critical decisions and to provide the oversight and field operational knowledge absolutely required for fire and rescue communications needs.

VI. Findings

B. Issue #1, Consolidation

It is my feeling that we have a unique fire/rescue service delivery system. One which is diverse in its methods of delivery, people it serves, geography it covers, and system of providing coverage. It is a system which has evolved over time. Our F/R system should not be characterized as overly simple or shallow. The fire/rescue communications component of our system evolved with the overall service. From the first days of two-way radios in the 1940's to our new Hewlett-Packard 3000, Computer Aided Dispatch, our communications network and organization has been tailored to meet the needs of our complex fire/rescue delivery system. Our communications organization is responsive to the direct needs of the system. It truly is a function of total quality management in that customers can, and frequently do, provide feedback and complaints directly to the Center's manager. As the center manager is also very experienced in field operations, there is an understanding and level of communication in solving the problems that would not be understood by someone without this experience. The manager is also a link to a number of directional organizations, including DFRS, Fire/Rescue Commission and the

Chief's Committee Communications Subcommittee. While at times having numerous masters can be difficult, they do provide the service with a strong measure of control over the communications process. Without this level of control and understanding, I feel the communications organization could not effectively provide service in an outstanding and timely manner to the County's complex fire and rescue service.

1a. Contrary to what is reported in this section, I believe the two centers are very different. While both ECC's ultimately serve the same customer, the citizens of Montgomery County, the similarity ends here. Operations in the two centers are totally separate and distinct. Operating methods are entirely different.

After alerting fire and rescue responses, unlike Police, the Fire/Rescue ECC continues to maintain an ongoing interactive function with Fire/Rescue Field forces. The fire and rescue dispatchers must maintain a strong awareness and understanding of the many specific needs of the field forces on the scene. They must be ready to anticipate, receive and provide resource support through all established means and networks. Some of these resources include:

- Specialized apparatus such as foam trucks from military and aviation centers.
- Hazardous materials related organizations such as CMA, CHEMTREC, and the CHLORINE INSTITUTE.
- Specialty teams such as collapse/cave-in, hazmat, underwater rescue, and high angle rescue.
- Metro support team, etc.

In Police ECC, the personnel are not required to possess or maintain a broad resource knowledge which may be needed by the operational forces.

The report implies that the Fire/Rescue ECC exercises no operational control when in fact they do. Fire/Rescue exercises ongoing control over apparatus response, and makes specific moves to provide coverage throughout the county by reassigning (transferring) apparatus temporarily. Furthermore, it is a common practice for Fire/Rescue to divert a responding apparatus from one incident to another as needed.

During severe weather or other conditions where there is an inordinate number of requests for assistance by the public, the ECC operates under "Condition Red." Under this mode of operation the dispatchers have full authority to suspend or alter standard apparatus assignments. The combined volume and frequency of incidents places an additional workload on the dispatchers. This translates to greater stress and exacts a greater degree of discretion and judgement by the individual dispatchers.

1b. There are no comments to this statement.

1c. The Police and Fire/Rescue, both are subject to periods of high stress during the course of receiving and dispatching calls. However, it is our experience, that due to the higher number of immediate and ongoing emergency calls received and processed by Fire/Rescue ECC, the stress level is more common and sustained over the course of a working shift. This was recognized by the County Government and Fire/Rescue in the 1970's, and resulted in the upgrade of the Fire/Rescue Communication employees to a Group E, Public Safety type retirement system. Fire/Rescue ECC commonly receives calls from people pleading for help, such as, mothers who's babies have stopped breathing, people reporting serious accidents, and of course families fleeing their homes because of fire. These calls and the dedicated desire of the dispatchers create an elevated and sustained level of stress for ECC personnel.

1d. This statement does not adequately reflect Fire/Rescue ECC's contribution and responsibility in developing the very policies, procedures and guidelines which govern the entire communications system used by the many facets of the Fire/Rescue Service. The Fire/Rescue ECC participates in policy work. Policies are researched, planned and written in ECC, then go to the authority having jurisdiction for formal and legal implementation. An example of this can be seen in the following:

- When an operations policy is proposed by the Fire/Rescue Commission, ECC reviews the proposal and develops specific guidelines for implementation as it impacts on ECC and the Fire/Rescue Communication network.
- Once a year the Fire/Rescue Communications Officer (Fire/Rescue ECC Manager) is required by law to review the Fire/Rescue Services Communications Manual, revise and add additional procedures as needed, and submit to the FRC for its endorsement.
- In addition, we serve in committee capacity to the FRC and frequently prepare draft policies and guidelines as a result of service problems and needs. Some of these are implemented as "in house" ECC directives, some will become DFRS regulations, and others become Commission regulations.

1e. We do not agree that both communications centers require similar basic telecommunications and automated data processing system knowledge. The fire/rescue telecommunications network is different, more complex and, in fact, requires a high level of knowledge and interaction. Fire/Rescue personnel also regularly enter and maintain complicated data processing information. The Fire/Rescue communications' skills go beyond common sense and practical performance. They possess a level of expertise derived from training and the experience of actually performing the fire/rescue job.

2a. I do not agree that the double queuing is a major shortcoming. The transfer is very quick, and it is not uncommon to fire/rescue communications centers regionally. The transfer from the Police call taker to the Fire/Rescue call taker occurs so quickly that it is barely noticeable to the caller. The only exception is in times of peak sustained incident activity such as during severe weather, and when there is a highly visible incident in a heavily populated area. During these events when the 911 overload is transferred to the fire ECC, it also gives us the opportunity to accurately screen out Fire/Rescue type calls from repeat calls or from police type calls which may be being "stacked."

2b. I do not see the maintenance "share" relationship as being a shortcoming. At first blush it presents an alleged redundancy, when it actually serves as a reliable back up option. It is a strong cooperative relationship which characterizes why the two organizations can stand alone and co-exist by helping each other. Regardless of what form we end up with, we need at least two CAD system managers in the event that one is sick, on leave, dies, etc. To date, there has not been any evidence of a problem with the arrangement described in Section VI. 2a.

2c. The two telecommunications disciplines are significantly different and could justify a continuation of a separate training coordinator for each. Training is an important planning and support function to either center. Fire/Rescue, as stated earlier, has a much more complex and large communications system which requires a good working knowledge of its concepts and realities. It would be difficult to envision one person providing the necessary coordination for the two unique training areas.

2d. There is insufficient evidence to show that this is a short coming. In addition, as stated earlier, the levels of occupational stress in the two centers, although similar, do not both carry the same relative occurrence and duration. How will a move to consolidation change the impact? A move to increase the amount of knowledge and skills the employee must possess, will certainly result in a need for reclassification. Thus an unrealized

additional cost to the consolidation. There is not a great difference in job classification categories when looking at it from what both employees (civilian and uniformed) do. While both employee groups have different retirement plans, their rate of pay is very similar. There is no connection here to suggest the need for consolidation. Finally, I cannot see any relevance for mentioning the bargaining unit in this issue.

3a. Without a doubt, there is a short time loss in transferring each call. However, it is but a second or two and as specified earlier, it is not an uncommon communication procedure. In addition, it should be noted that Police do not answer all 9-1-1 calls.

3b. This is one of the biggest objections the Fire/Rescue Service has to this plan. This suggestion is a drastic and costly change to a system which is truly working. It is within this suggestion that many hidden and ambiguous cost increases alluded to by the managers of Fairfax and Arlington Counties are included. They firmly stated that consolidation and civilianization should only be considered if cost savings is not the objective. Training the 99 Police dispatchers in Emergency Medical Services (EMS), Fire/Rescue and other essential orientation subjects are added costs, not savings. Moreover, to bolster our present staff, we possess a cadre of ECC trained personnel who can readily be recalled or reassigned as a part of ECC staffing needs. One benefit to this is that we do not have to force our employees to work overtime. We can detail personnel in as well as provide them with professional enrichment affording them opportunity to serve in different career areas. We do not believe that there is a benefit from over-generalization as noted in the OLO report.

As stated before, it would be an absolute necessity to retain a management and supervisory team to oversee the operation. This added expense and the assumption that a total reclassification of ECC staff would add significant cost to the operation of the ECC over what is presently spent for a very effective service, why change to a much less efficient system if there isn't a significant savings?

3c. There would be no overall savings in a civilianization and consolidation program. What cost savings are realized in one area are absorbed by new costs in other areas. The cost savings of eliminating the management team can be seen as somewhat insignificant when considering the satisfactory performance of the center. In addition, it should be noted that the present members of the management/supervisory team in Fire/Rescue ECC, who were assigned to ECC as of the beginning of the 1993 fiscal year, are at the bottom of their respective grades. In this regard, it can be stated that the total cost for the Fire/Rescue Management Team is approximately \$25,000 less than the total indicated in Table 6 or (\$146,000). The overall trend for fire and rescue, in regard to staffing of management positions, would be similarly low, due to the emerging of managers with far less merit system time and thereby considerably less salary and fringe benefit costs. In addition, we feel that your characterization of the Lieutenant as a part of the management team, is not correct. The Lieutenant in ECC provides a focal point, or hub if you will, for centralizing and coordinating the 4 shifts. This Lieutenant is, in effect, our operations supervisor. The position is used much like a Fire/Rescue Station Commander. We question whether any consideration has been given to removing the Captain and Lieutenant positions. If so, who then, will complete the work that these two employees did. Somewhere in the systems the impact must be noted.

3d. We do not concur with these comments. The CAD system is so important that it would be necessary to have complete redundancy in systems management as well as in training. The bottom line is the work will remain for two people.

3e. I am not convinced that there is sufficient space to consolidate all ECC call taker and dispatch functions on the same floor. Fire/Rescue ECC requires a minimum of at least three (3) radio positions. This includes the primary radio dispatch position, which is constantly staffed. In addition, there is a requirement to staff the three operations/tactical channels should they be needed during a fire/rescue emergency, and a separate position for a fire/rescue ECC employee to provide phone patch for EMS to hospital communication, hospital phone notifications, syscom radio, and mutual aid monitoring. There is no perceived room for expansion due to (inevitable) incident increases and thus the need for more positions.

3f. I have not been apprised of an employee morale problem in ECC which would be improved by a consolidated center, common job classification, retirement and single career ladder. I believe that if these are problems, then they could be addressed on the Department level. This proposal does not enhance morale or the career aspirations of the staff of firefighters presently serving in ECC.

4. The description of the Washington-Baltimore area consolidated centers was thorough. However, they are all unique in their organizational principles. I see no compelling argument which would persuade me to consider changing to their way of operation. Montgomery County's Fire/Rescue Communications has been a pioneer in innovation and effective operations. We are contacted frequently by local jurisdictions as well as centers country-wide for model procedures. We do not feel that comparing our center to other regional centers is appropriate. Our ECC is tailored to meet the needs of Montgomery County's Fire and Rescue Services.

5. Discussion of actions to take prior to any consolidation.

Though I strongly oppose any move or plan to consolidate the Fire/Rescue and Police Communications organizations, should such a change occur, I believe an extensive study and planning document be prepared and that a consensus be developed among the parties of those affected. I also feel that since this document does not clearly describe the many costs associated with a consolidated center, that a careful study be implemented to uncover these costs prior to any decisions.

IV. C. Issue #2 - If the ECC is consolidated into a single organizational entity, what should be the organization and management structure for that entity?

Findings

3. While DIST is the responsible agency charged with maintenance, it is not, by nature, an organization that focuses on emergency management. It is our opinion that if the same emergency mindset/philosophy does not prevail, it is likely to create an incompatible interface between the two major groups and DIST. Furthermore, I can foresee the need for DIST to require the creation of additional levels within their department to support such an endeavor. Is this a prudent downsize? Furthermore, how will DIST favor having to negotiate the necessary operating procedures from such diverse public safety systems? We also do not believe that DIST could take on this mission without being provided additional personnel resources.

IV. D. Issue #3 - Should the current practice of staffing fire/rescue communications with career fire and rescue personnel be continued?

We feel strongly that the use of fire/rescue personnel provides our service with the ideal support and functionality required for a unique and diversified fire/rescue delivery system.

In comparing the labor pool from which candidates for the communications technicians are drawn to that from which firefighters are selected, we looked at a number of factors. We feel that due to the greater career opportunities, greater selection and variation of job tasks, greater personal reward for human service delivery, and the ultimate promotional potential we are able to attract and retain quality applicants. By offering these positions to individuals who have the opportunity to ultimately be able to transfer into the career fire service, we benefit from the advantages that this later career affords. Our experience has been that these new employees serve with a dedication and purpose beyond what we feel a technician would possess.

Fire Communications and Police Communications differ considerably. Most fire dispatches require immediate, correct and complete emergency responses or someone's life is endangered. The police dispatches, on the other hand, often do not require emergency response by police units. The fire and rescue personnel must be on the scene promptly in order to eliminate or otherwise mitigate the emergency in a timely manner. From this standpoint, the criticality of accurate initial dispatch is greater. The fire dispatchers handle a great number of complex calls requiring operator decisions. These are decisions that are generally made by the field supervisors in police operations.

When a call is received for fire or rescue services, the decision process begins. Based on questions asked and the information received, dispatch personnel are able to provide the resources needed to successfully handle the incident. Their individual expertise weighs in the evaluation of the severity of the request and proper dispatch of resources available for various incident types. These include specialty equipment such as rescue and high rise evacuation teams and paramedic units. Personnel in the Communications Center know the capabilities and operational characteristics of available resources. The dispatch process begins with an engine or ambulance and expands to include other necessary equipment, based on decisions made by dispatch personnel. Each of the approximately 190 requests received daily are different. Due to the considerable number of variables involved in fire dispatch, we are convinced that a thorough knowledge and experience in fire operations is mandatory.

In most incidents, once the initial dispatch is made, a police technician's job is essentially complete. Whereas, the fire dispatcher's job just begins. The dispatcher must have the knowledge and skill to assist throughout the event. The on-scene personnel rely completely on the dispatcher to keep them abreast of changing conditions, to monitor their requests for additional equipment, to understand those requests and be able to respond to them, to maintain an accurate accounting of resources provided and available, and to anticipate, in many instances, their next message. There exists a strong commonality of interest between the firefighters in the dispatch center and the firefighters on the scene of the emergency. This is due in part to the interactive nature of the two functions.

Complete and timely communications between units operating on a fire or rescue event is as important to the success of the incident as is the team work of firefighters attacking a fire on the hose line, the operator of the pump, or the officer in charge.

Another example of the level of skill required and the dual use of firefighter training is the Pre-Arrival Instruction Program. Our dispatchers, upon receipt of calls for persons who have stopped breathing, are severely bleeding, or are choking, are trained to provide instructions to the caller while the rescue personnel are responding. These instructions in what to do until the ambulance arrives have resulted in several dramatic instances of lives being saved over the phone. Without their firefighter training and field experience in actually performing these functions, this capability is likely to diminished.

Further, the use of trained firefighters in the dispatch function allows for the lateral movement of personnel to and from the fire/rescue departments. We not only gain from the experience that field operating personnel bring with them, but because it is less physically demanding, we are able to make greater use of personnel in the later years of their careers, as well as usefully employing the temporarily disabled.



Montgomery County Government

March 11, 1993

MEMORANDUM

TO: Ms. Deborah J. Snead
Assistant for Total Quality Management

FROM: Colonel Clarence Edwards *CE*
Chief of Police *(M)*

SUBJECT: Draft OLO, Report #92-5

DATE: March 10, 1993

ASSESSMENT

A careful review of OLO Report 92-5, Organization and Management of the Montgomery County Emergency Communications Center, has been conducted by this department. It is clear that Mr. Mansinne's office invested a considerable amount of time and research in the completion of this project. Accordingly, his personal efforts and those of his staff should be commended for producing, for the most part, a thorough and forthright document. There are, however, certain inconsistencies which have been identified by my staff and should be brought to your attention.

CALL PROCESSING ANALYSIS

The Police Communications Division received 799,384 calls during CY 92. Of that amount, 445,300 were received via 911 or other emergency lines. The balance, 354,084, were received on non-emergency lines. While OLO notes that 82,837 calls were referred to Fire/Rescue Communications, it was not emphasized that all 799,384 calls had to be processed first by police call-takers.

The computation by OLO in presenting the percentages of workload handled by each of the Communication Centers is, therefore, inaccurate. The 82,837 calls transferred to Fire/Rescue should be calculated against the total number of calls received by Police Communications (799,384), not just the 911 calls (445,300). The corrected computation would then reflect that Fire/Rescue handles 10.36% of the total telephone workload.

D.I.S.T. INVOLVEMENT

OLO has presented a somewhat expanded representation of D.I.S.T.'s overall impact upon Police and Fire/Rescue Communications and their ability to function operationally without D.I.S.T. oversight. While this Department acknowledges that D.I.S.T. plays an important role in the procurement and maintenance of radio and telephone equipment, such support is extended to a variety of Departments and is not unique to the Emergency Communications Center. The OLO position that the Communications facility be placed in D.I.S.T. based upon their responsibility to support the equipment, is a questionable and concerning proposition. D.I.S.T.'s involvement has not extended to the actual hands-on delivery of Police or Fire Rescue services to the public. Concerning the Computer Aided Dispatch System (CAD), D.I.S.T. has, from the onset of the project, participated in the planning and procurement process related to this program. Their staff have also provided access to the County's geographic data base. However, actual day-to-day supervision, administration and physical operation of the CAD system, has always been the responsibility of Police and Fire/Rescue staffs. In fact, the majority of decisions related to the actual usage and users of the CAD system have been deferred, by D.I.S.T., to the individual Departments.

RECOMMENDATION

I am satisfied that the current arrangement of the two Centers is operationally prudent and effective and hence support their continued operations as separate facilities. I would suggest that the County consider hiring a system administrator who would work with both departments to ensure maximum utilization and prompt maintenance and repair of the CAD computer. In addition, there should be a combined training function for the Communications Center, and the Police Department should handle the responsibility for receiving all 911 calls. Should a decision be made to pursue consolidation of the Communications Centers, control and administration of the combined Center should, in my view, rest with the Police Department. Supportive reasons to be considered for this choice are as follows:

-Existing data clearly indicates that Police personnel in ECC handle approximately 86% of the telephone workload processed by the Center. The assumption of the remaining call-taker responsibility would not be that significant a task.

-D.I.S.T., while providing a meaningful support role, has had no practical experience in the operational delivery of either Police or Fire/Rescue services. Even their management levels have had no such training, skills, or personal knowledge related to the application of critical Police or Fire/Rescue procedures.

-The Police portion of the Communications facility provides the only operations floor capable of housing both Communication entities. Twenty-three (23) stations occupy Police ECC compared with seven (7) positions in the Fire/Rescue Center. Absorption of the Fire/Rescue positions on the Police operations floor would not be difficult. From a supervisory and management perspective, it is imperative that the operations floor facilitate both entities.

-Civilian personnel are already in place in Police ECC. The Center has proven that it does not require any sworn officer staff. As in other jurisdictions, civilian staff members can be trained in the necessary Fire/Rescue procedures and administer them properly.

Should you wish to discuss any specific aspects of the OLO draft or require any further information concerning our Communications operation, please do not hesitate to contact me.



Montgomery County Government

MEMORANDUM

March 11, 1993

TO: Andrew Mansinne, Jr., Director
Office of Legislative Oversight

FROM: *David L. Rasmussen*
David L. Rasmussen, Director
Department of Information Systems and Telecommunications

SUBJECT: Draft OLO Report #92-5, The Organization and Management of the ECC

I want to thank you for giving us the opportunity to comment on your DRAFT report #92-5. Should the 911 call-taking, Police dispatching and Fire/Rescue dispatching be consolidated under DIST as an all-civilian operation, we would recommend the following:

1. The functions and number of personnel required to satisfy the requirements of the Emergency Communications Center warrant establishing a new Division in DIST with a division chief (probable grade 31).
2. The management of the computer operation and network requires establishing an Automated Systems Manager (grade 25). This would reduce the projected savings by approximately \$60,000 (includes salary and contribution to retirement and Social Security [p. 20, Findings paragraph 3.c]).
3. The hardware and software maintenance contracts currently funded and managed by Police must become a responsibility of the new ECC Division.
4. The first step in the transition will be the establishment and filling of the new division chief position. We anticipate the more difficult transition will be in the Fire/Rescue dispatching. For that reason the transition will require that a training program be designed, dispatch personnel be selected, training be conducted and then transition begun to civilian dispatching. It is difficult to predict how long this process will take once a division chief is on board. We recommend that we plan for a full year for this transition.

Again, I want to thank you for the opportunity to comment on your proposal before submission. If you have any further questions or comments please do not hesitate to call me on 217-2822.

Department of Information Systems and Telecommunications

Executive Office Building, 101 Monroe Street, Rockville, Maryland 20850-2589, 301/217-2553



Montgomery County Government

MEMORANDUM

March 17, 1993

TO: Andrew Mansinne, Jr., Director
Office of Legislative Oversight

FROM: George Giebel, Chairman *GG/mab*
Fire and Rescue Commission

SUBJECT: Comments on Draft OLO Report 92-5, The Organization and Management of the Montgomery County Emergency Communications Center

On behalf of the Fire and Rescue Commission (FRC), I appreciate the opportunity to review and comment on the above referenced report. The FRC believes the organization and management of the Emergency Communications Center (ECC) has a profound effect on all elements of our fire and rescue service. Therefore, the FRC sponsored a discussion of this draft report to solicit comments from field personnel to assist the Commission in preparing comments.

Overall, the background you have provided regarding fire/rescue and police communications is both thorough and informative. For the purpose of this response, the Findings section of the draft report will be the focus of review and comments.

- Issue #1: Whether the current organization of the ECC, with its separate Police and Fire and Rescue Communications Centers, should be organized into a single organizational entity.

You are correct that the function of fire/rescue and police communication centers are similar in that they both respond to citizen requests for emergencies and they provide alert notification and information to the operating elements of their respective public safety organizations. However, your statement that fire/rescue communications does not exercise command and control over fire and rescue incidents is incorrect. Fire/rescue ECC does effect command and control by determining the incident type category when a request for assistance is received. ECC personnel categorize the response based on an interpretation of information provided by the caller. The determination of incident type is critical as the type and complement of apparatus dispatched

Montgomery County Fire and Rescue Commission

101 Monroe Street, Twelfth Floor, Rockville, Maryland 20850-2589
301/217-2461, TDD 217-4625, FAX 217-2443

varies from category to category. The fire/rescue incident commander depends on ECC personnel to "label" the incident accurately so an appropriate response can be initiated. Police field supervisors can determine priorities and exert control over their dispatcher. This is not the case with fire/rescue dispatchers. We believe this is a fundamental difference between fire/rescue and police. Fire/rescue ECC is also responsible for reallocating (i.e. transferring or moving up) resources during a major incident. This responsibility can be crucial during a working incident or in a high activity period. The fire/rescue personnel you spoke with regarding this issue may not see problems because the system we currently have is working well.

Your report raises concern on the functionability of the back-up ECC. It should be noted that if the back-up ECC were activated, operations would revert to a manual mode. While in manual operation, several complex tasks would be done by hand. Personnel dedicated to fire/rescue ECC operations would be needed to operate even at reduced efficiency. This problem would be compounded if manual mode were required during a disaster or high-incident activity period.

Your recommendation to consolidate the organization and management of the ECC appears dollar driven. While such a rationale deserves merit, especially in times of fiscal constraint, the issue is not quite that simple.

First of all, in order to consolidate the ECC, you reference the need to reconfigure the first floor to accommodate additional consoles and terminals for fire/rescue operations. You also indicate "in the opinion of those currently occupying the first floor" (i.e. police), there is adequate room to accommodate these modifications. Before such a reconfiguration is given serious consideration, an analysis and consultation should be undertaken with all involved parties including fire/rescue and DIST. Even if reconfiguration is feasible, the associated costs will be substantial. The existing facility was designed for separate police and fire/rescue operations, and space availability is extremely limited. If the ECC were consolidated, the current advantage of fire/rescue call takers being able to speak face-to-face with the dispatcher would be lost.

Secondly, if consolidation were implemented and your recommendation of training all ECC personnel were instituted regarding EMT certification, the overall cost for training would dramatically increase. Currently there are 95 authorized positions in police communications which deal directly with public requests for emergency assistance that would require EMT certification. The Maryland EMT class is currently 110 hours in length so the cost of training such a large cadre of individuals would be substantial. In addition, all personnel would be required to attend a 24-hour EMT recertification class every three years. Such a requirement would result in a probable upward adjustment in classification of police dispatchers due to the additional training as well as the requisite physical standards that communications would now be required to meet to complete EMT training. What would happen to existing police communications personnel who could not meet the revised standards for reclassified positions?

Your financial analysis on dollar savings does not show the entire picture. The Baltimore County combined communications system has two fire and two police communications liaisons (exhibit C). It is safe to presume such position(s) would be created with an ECC consolidation in Montgomery County, thereby offsetting some of the identified savings with consolidation and civilianization.

- **Issue #2:** If the ECC is consolidated into a single organizational entity, what should be the organization and management structure of that entity?

Several arguments have been raised against the consolidation idea. Your point that a consolidated ECC should not be placed in police or fire/rescue is well taken. However, the other alternatives are equally undesirable.

The introduction of yet another player in the management of the ECC will impact on the already complex and unique structure of our fire/rescue service. In fact, you have previously identified one of the challenges that face the leadership of the fire and rescue service in a recommendation from OLO Report 92-3, Volunteer Incentives in the Fire and Rescue Service:

"Acknowledge that a combination volunteer and career service creates unique management challenges and continued success will be to a large part the result of management's ability to balance interests, promote teamwork, and reduce interpersonal and organizational tensions."

The consolidation of ECC will work contrary to this recommendation. Currently the FRC works closely with DFRS and the fire and rescue corporations to develop communication policies and procedures. Consolidation will introduce yet another party to this process, with a resultant danger to the delicate balance and cooperation among existing participants may be compromised. The chain of command for handling complaints will become cumbersome. It is quite presumable that all elements of the fire and rescue service will view the new management authority of the ECC as an outsider, thereby placing an additional strain on our fire and rescue system.

The alternative recommendation of placing a consolidated ECC under DIST is also undesirable for the above stated reasons.

- **Issue #3:** Should the current practice of staffing fire/rescue communications with career fire and rescue personnel be continued?

As referenced earlier, there is a fundamental difference in how fire/rescue ECC and police ECC operate. Fire/rescue categorizes requests for assistance into one of over 150 incident types. By having uniformed personnel with operational training and experience, calls for assistance can be more accurately categorized. A trained, experienced firefighter/rescuer can identify situations at the other end of the phone by keying on information from the caller which an inexperienced or untrained person may not. Is the caller providing indications he/she is suffering from a heart attack or the flu? A paramedic unit and an ambulance or engine would respond to a heart attack while only an ambulance would respond to a patient with the flu. Current statistics show fire/rescue ECC personnel dispatch adaptive responses seven times more often than full assignments. Adaptive responses are when the fire/rescue call taker makes a judgement the incident can be effectively handled with a reduced complement of apparatus. Therefore, the response for a smoking wall socket in an apartment house would be two engines and a ladder truck instead of four engines, two ladder trucks, one rescue squad, one ambulance, and two command officers (i.e. a full assignment).

Personnel without an operational background will overdispatch because of a reluctance to assume the risk of categorizing incidents by sending less equipment. The risk to fire/rescue personnel will be increased while the cost to the taxpayer will also increase due to wear and tear on our fleet. In addition, units assigned unnecessarily will be unavailable to answer other alarms. The need to possess operational training and experience for fire/rescue communications staff should be mandatory. It should be noted that the vast majority of fire/rescue civilians who previously staffed the former EOC were volunteer fire/rescue personnel with operational training and experience.

Fire/Rescue ECC personnel do, in fact, exercise discretionary judgement in determining response assignments. The Commission grants this authority in the Communications Manual based on the information received and overall conditions. The computer (i.e., CAD) is simply a tool to assist ECC in preparing response recommendations and managing data. As previously discussed, ECC staff use discretion in categorizing requests for assistance. In periods of high call activity, such as severe thunderstorms, this discretionary judgement becomes even more critical. Tough decisions, including whether to dispatch or not dispatch an incident, need to be made. Fire/rescue ECC staff can significantly alter response assignments, which has proven to be extremely effective in such periods.

An additional advantage to uniformed personnel at fire/rescue ECC is that DFRS has a large pool of personnel to rotate into the ECC to accommodate employee burnout. Working at ECC is indeed very stressful, and even though interested personnel undergo a battery of tests to indicate job compatibility, personnel who do not perform well can be reassigned to other job assignments. DFRS does periodically assign rookie firefighter/rescuers to the ECC, but these individuals are closely monitored by more experienced ECC personnel. The Personnel Office report of the turnover rate for civilian communications employees in police ECC was "not significantly different" from other County employees is suspect, as many well placed observers indicate otherwise. Hopefully, your final report will further clarify this issue.

SUMMARY

The consolidation and civilianization of fire/rescue ECC is not a good idea. Although your report indicates cost savings and increased efficiency, a number of indirect costs fail to sustain such a concept. The citizens of Montgomery County and the fire/rescue service benefit from having uniform personnel staff the ECC. Despite several similarities, fire/rescue and police communications are different in Montgomery County. Our ECC personnel possess training and experience to allow for a detailed system of categorizing responses to minimize unnecessary apparatus response providing better service to our citizens and reducing risk to fire/rescue field personnel. Simply stated, almost all requests for police assistance involve an incident that has already occurred where danger to the citizens is minimal. Conversely, almost all requests for fire/rescue service involve incidents that are in progress where danger to people and/or property is present (i.e., an emergency). The current management and organization structure in fire/rescue ECC should be maintained.

The idea of making a substantial change in ECC organization and management to save money and improve efficiency does not explore the more critical issue -- the impact deep into the structure of our fire and rescue service.

Thank you for the opportunity to comment on your draft report. I look forward to discussing the final report with the County Council.



Montgomery County Government

MEMORANDUM

March 17, 1993

TO: Andrew Mansinne, Jr., Director
Office of Legislative Oversight

FROM: Robert K. Kendal, Director 
Office of Management and Budget

SUBJECT: DRAFT OLO Report No. 92-5, The Organization and Management of the
Montgomery County Emergency Communications Center

Thank you for the opportunity to respond to this report. I understand that OMB staff have discussed with you those areas of the report that would benefit from technical corrections or clarification. My comments concern more general policy issues, findings, conclusions, and recommendations discussed in Section VI through Section IX.

Issue # 1, Consolidation: Common Queue

Regarding Recommendation A.1.a, in addition to the savings that could be realized from a common initial queue to receive 911 calls, as you are proposing, employment of a common call-taking queue would immediately handle all incoming 911 calls and promptly direct these calls to the appropriate dispatcher. This would significantly reduce response time for all emergency calls, not just the savings anticipated from relieving a separate fire queue. Just as a switch from parallel queues to a single queue at a bank's teller windows reduces average waiting time for all customers, a switch to a common queue for police and fire calls would reduce average waiting time for all emergency calls. The resulting efficiency improvement is especially significant during serious incidents when call waiting and dispatching queues are longer. This reduction in waiting time would be particularly significant for emergency calls to fire because there would be more available call takers to handle fire related calls. Use of a common queue would also improve supervision at busy times because it would avoid the necessity for the fire supervisor to answer calls to keep waiting time down as sometimes occurs. Availability of enhanced software through the new updated CAD system will permit quantification of response times to maximize service quality.

Issue # 1, Consolidation: Cooperation

Regarding Recommendation A.1.b, in addition to the considerations noted in the report, cooperation between the Police and Fire and Rescue sections of the ECC is important because:

Office of Management and Budget
Director's Office/Interagency Analysis & Review Division/Budgets Division
101 Monroe Street, 14th Floor, Rockville, Maryland 20850, 301/217-2789, 2820, 2800

1. extensive cooperation is required in handling incidents common to both departments in which constant communication between police and fire units is essential; common incident tracking and integrated computerized incident information would facilitate inter-departmental communication and improve coordinated emergency response;
2. each section must deal with common equipment problems, such as computer system and building maintenance management; consolidation would improve communication on such issues; and
3. each section must be ready to adapt to technological and operational communication innovations.

In each of these circumstances bifurcation of overall responsibility often inhibits necessary communication.

On the issue of shifting personnel as discussed in Section VI, B.3.b, the report claims that consolidated management would permit shifting personnel between police and fire communication duties as necessary. Common call taking with a single waiting queue would automatically permit and indeed require personnel to shift between police and fire calls as demand shifts. There would be no need for formal shifting or moving any personnel. The report does not address inherent limitations in personnel shifting which result from separate radio channels, which would not be changed by consolidation. Therefore, it should be clarified that some separate call dispatcher functions will still be required.

Issue # 1, Consolidation: Physical Consolidation

Regarding Recommendation A.2.e, OMB concludes that while there is sufficient space in the ECC to collocate dispatch activities on the first floor, this is not essential because the CAD system is designed to avoid the need for common physical location. In fact, communications professionals stress the need to make all communications through the computer rather than orally. ECC procedures currently require system communication rather than physical or oral communication. Thus, fire dispatchers can remain on the third floor without hindrance to efficient operation. The cost of moving the fire and rescue dispatchers from the third floor might not be necessary.

Issue # 1, Consolidation: Queueing Study

OMB disagrees with Recommendation A.2.f regarding the timing of the queueing study to determine optimal staffing levels prior to consolidation. While such study is vital as an ongoing management responsibility, there is no need for an additional study prior to consolidation. Such a study is best performed under real world conditions after implementation of consolidated call taking.

Issue # 2, Organization

OMB concurs that the ECC should be a single organizational entity. It is reasonable, given the need for cooperation, to locate the ECC under a single organization. The Executive should review alternatives for the most appropriate reporting relationships.

Issue # 3, Staffing

OMB concurs with Recommendation C.1 that Fire and Rescue communications be staffed with non-uniformed personnel. Experience in other jurisdictions suggests that "civilian" staffing will improve the quality of fire communications. The change should be made gradually, however, and only after an effective training program is in place. The CAD system has been upgraded to take full advantage of back-up systems that formerly necessitated career fire and rescue personnel to manually perform communications functions.

OFFICE OF THE COUNTY ATTORNEY
MONTGOMERY COUNTY, MARYLAND

M E M O R A N D U M

March 18, 1993

TO: Andrew Mansinne, Jr., Director
Office of Legislative Oversight

VIA: Joyce R. Stern *Joyce R. Stern*
County Attorney

FROM: Bruce P. Sherman *Bruce P. Sherman*
Senior Assistant County Attorney,
Public Safety Team

RE: Draft OLO Report 92-5 Organization and Management of
the Montgomery County Emergency Communications Center

Thank you for the opportunity to review and comment upon your draft OLO Report concerning the organization and management of the County's Emergency Communication Center. The report mainly deals with issues of organization, management, staffing and costs of operation. There are no significant legal issues raised in your analysis.

The OLO Report identifies the difference between the standard workweek for career firefighter positions and civilian communications personnel in the communications facilities. Career firefighter employees detailed to the communications center are identified as working a 42-hour workweek while civilian communications employee have a standard 40-hour workweek. Under §7(k) of the Fair Labor Standards Act (FLSA) (29 U.S.C. §207(k)), the federal government enacted special overtime provisions dealing with governmental public safety employees. Under the statute and implementing regulations, career firefighters are not entitled to overtime compensation until they have worked over 212 hours in a 28-day work cycle or 53-hours per week on average. Police officers may be required to work up to 43-hours a week without overtime compensation under the FLSA. By contrast, civilian employees must be paid overtime for all work in excess of 40-hours in any given workweek.¹

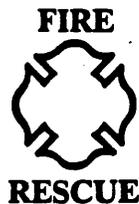
¹In 1986, Congress enacted special provisions dealing with governmental employees authorizing the use of compensatory time under certain circumstances in lieu of cash payments for overtime.

Because of the FLSA overtime provisions, civilian employees working the same work shifts currently filled by career firefighters would be entitled to two-hours of overtime per workweek (7.5 % additional compensation). Alternatively, civilian employees replacing career firefighters in the communication center could be assigned a 40-hour workweek with a resulting 4.76 % loss in staff time.

As previously indicated, there are no significant legal issues raised in the OLO Report on the organization and management of the Emergency Communications Center. The limited issue raised under the FLSA presents a question for governmental policy resolution, rather than an area involving legally mandated preferences. The limited comments made in this memorandum are not intended to imply support or opposition to the specific findings and recommendations contained in the report. The County Attorney's Office remains available to review any other legal issues that may be identified during the informal comment period on this report.

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cc: William H. Hussmann, Chief Administrative Officer



**Presidents Committee
of the
Fire and Rescue Corporations
of
Montgomery County**

March 18, 1993

Mr. Andrew Mansinne, Jr., Director
Office of Legislative Oversight
100 Maryland Avenue
Rockville, Maryland 20850

Dear Mr. Mansinne:

Thank you for your memorandum of February 18, 1993 requesting the comments of the Presidents Committee on Draft OLO Report 92-5, The Organization and Management of the Montgomery County Emergency Communications Center. The primary interest of the Presidents Committee in this subject can be simply stated: We wish to see that Montgomery County has the most efficient, effective, timely, and forward looking fire and rescue dispatch system possible.

Our comments on each of the report's three major recommendations follow:

The separate Police Communications Center and Fire and Rescue Communications Center should be consolidated into a single Emergency Communications Center.

Comment: Throughout government at all levels, consolidation -- spurred by fiscal pressures -- appears to be the trendy management answer. We would argue that police and fire and rescue call taking and dispatch are two quite distinct and separate functions. Can they be made to function under a single manager? Yes, governments have been creating and destroying entities for years and declaring success whether or not the facts justify the action. Would a consolidated ECC be in the best interest of the public, as well as that of the police and fire and rescue service? This is debatable.

We would concede that perhaps the ECC could be managed by a single team. However, because of differing responsibilities and needs, the ECC would need strong liaison with both police and fire services. This requires assignment of at least one uniformed officer from each service, preferably at the level of Captain. Should this approach be selected, the ECC headed by a civilian manager, should be directly responsible to an Assistant CAO. The manager should NOT be a MCPD or DFRS employee.

Regardless of the overall management scheme adopted for the ECC, at the operational level -- call taking and dispatch -- we see a continuation of separate police and fire entities. We simply do not view both police and fire and rescue call taking and dispatch as homogeneous functions even though on the surface they have similar characteristics. The basic, and inescapable, difference between police and fire and rescue dispatch is that a police officer is sent to the scene and he/she sorts it out from there, and fire and rescue dispatch attempts to sort out the problem during call taking in order to dispatch the proper mix of units to deal with the situation. In the end, most police dispatch occurs after the fact, while fire and rescue call taking and dispatch tend to be evolutionary as the situation develops.

Another key factor to consider when comparing fire and rescue call taking and dispatch with that of the police is the former provides strategic direction to all fire and rescue equipment within Montgomery County, whereas the police department divides the county into a number of distinct districts whose boundaries are somewhat rigid. Once dispatched, police units in the field are subject to direction by police field supervisors, whereas fire and rescue units remain subject to ECC control until a senior fire/rescue officer assumes tactical command at the incident scene. Even then the ECC continues to monitor other county-wide needs versus the immediate local situation.

The report makes reference to the fact that combining both the police and fire and rescue dispatch functions would require all personnel be trained in emergency medical procedures if consolidation were to occur. This, ipso facto, says the functions are different. Moreover, the cost of this training, and probable job classification to a higher pay level for present police dispatchers, does not seem to be stated. "Savings" in the report appear to have dollar figures attached, but costs do not seem to have been approached with any sort of rigor. Indeed, we suggest most strongly that a rigorous cost benefit analysis is absolutely necessary.

There is a need to project training cost, position reclassification costs, and the time frame for such changes. Further, the effects of such changes on morale, working relationships, and continuity need further exploration. Abrupt disruption of ECC without careful planning and a fully justified publicly available basis is playing Russian roulette with a critical component of the public safety system.

The consolidated ECC should be organized as an independent, stand-alone activity, reporting to the CAO, or placed in the Department of Information Systems and Telecommunications.

Comment: See previous comments on the possible future management structure and subordination of the ECC.

The current positions in the Fire and Rescue Communications Center that are designated as career, public safety positions should be changed to civilian, non-public safety communications positions.

Comment: As we noted earlier, we believe a trained, uniformed firefighter is without a doubt the best person to receive calls from the public and dispatch appropriate fire and rescue equipment and command officers to effectively deal with and mitigate the emergency in the least amount of time. Time to the fire and rescue service is more precious than gold. Once spent, it can never be replaced. The OLO report obliquely supports this conclusion by noting that police dispatchers -- in any future consolidated center -- would have to be retrained to the higher medical knowledge standards of fire and rescue personnel. All replacements would have to meet these higher job qualifications. In the current configuration, all fire and rescue replacements come complete with this training and can be replaced in the ECC virtually at will from a very large pool of personnel.

There is another, and perhaps unmeasurable, factor to consider with respect to uniformed fire and rescue call takers and dispatchers -- field level confidence in those who are guiding and directing them. Field service delivery personnel -- both career and volunteer -- know that fire and rescue personnel in the ECC have the same training as they do and are able to anticipate the needs of the field on an incident by incident basis. ECC watch standers often know when to "strike a box" alarm from the information provided by the caller, or when to send fewer units. This is the application of judgment obtained by training and experience. An all civilian force would be driven as a matter of experience and doctrine to dispatching just as indicated by the CAD with unnecessary units on the street. Finally, there is the matter of a failure of the CAD, which has happened before and, despite all we do to guard against a repetition, will happen again when we least can afford it. Call-taking and dispatch must continue in a manual mode and still result in the proper mix of units for each situation. This calls for knowledge and experience on a county-wide basis not normally found in civilians.

Additionally, research tells us that the "civilian" call takers and dispatchers used by the fire service prior to 1976 where, in the main, volunteer firefighters rather than pure civilians.

Finally, we note with some concern that this entire issue has been discussed repeatedly over the past several years. After the last review, the County proceeded to build a new ECC with separate facilities for police and fire dispatching. We recognize that equipment needs (consoles, radios, etc.) are different, but as an alternative, integration of both services on one level with supervisors on the second level does not appear to have been explored in the report. This alternative deserves further attention.

While the President Committee is willing to support change when the circumstances warrant, we truly believe the current separate police and fire rescue call taking and dispatch system is the best for Montgomery County and its citizens. Should we collectively wish to explore the overall management arrangement for the ECC to determine if some savings might accrue as the result of another structure, we would be glad to participate. Finally, we believe the replacement of uniformed fire and rescue personnel in the ECC to potentially save a few dollars per year, if in fact this were to prove true, would be a false economy in terms 24 hour-per-day, 365 days-per-year effectiveness. The fact that other jurisdictions cited in the report have all civilian call takers and dispatchers fails to address the efficiency and effectiveness of these operations and their associated costs.

The Presidents Committee appreciates the opportunity to comment on this report.

Sincerely yours,

Robert F. Kidd

Robert F. Kidd
Chairman

BETHESDA FIRE DEPARTMENT, INC.

P.O. BOX 30384
BETHESDA, MARYLAND 20824-0384

BUSINESS PHONE
(301) 652-5600

M E M O R A N D U M

MARCH 18, 1993

TO: Andrew Mansinne, Jr., Director
Office of Legislative Oversight

FROM: Henry Solomon, President *Henry Solomon*

SUBJECT: Comments concerning draft OLO Report 92-5,
"The Organization and Management of the Montgomery
County Emergency Communications Center"

I was impressed by the report but I feel several pertinent problem areas were not given the necessary weight and consideration. These areas boil down to training, costs, and planning, which are all intertwined.

The report does not adequately address the length of time required to train dispatchers and call-takers. A dispatcher must have a strong background to use specialized knowledge in calling for more or less help. The call-taker also must have a seasoned judgment to understand what must be done. The report does not address continual training required to replace personnel lost to pressure burnout, in addition to those lost from normal attrition. When a trained firefighter experiences stress on the job, the firefighter can be rotated back to the field. When a civilian burns out and cannot handle the stress of the job, all the time and training spent on that individual is lost.

Training takes time and costs money. If it took the police dispatching over 25 years to plan, train, and convert to a civilian organization, the 25 years of yearly costs must be factored into the changeover costs. Replacing higher paid personnel with lower paid people does give instant savings, but it does not consider the loss of ability, capability, and experience. In addition, salaries increase with time and that could wipe out any savings. True costs in a bureaucracy are elusive and I feel that the total costs are seriously understated.

To convert to civilian call-takers and dispatchers, a great deal of planning must be performed. Preplanning and planning must include figuring out how much knowledge call-takers and dispatchers need and how such people can be brought in, trained, and put in operational positions. The costs of this planning will subtract from planned savings.

Another planning concern is the idea of placing an emergency response organization under a telecommunications and maintenance department with different kinds of priorities. It is an interesting theory, but if DIST is the organization responsible for the recent costly problems in the computer dispatch system, their capability is questionable.

While I agree that some ECC procedures should be changed to minimize "call waiting," I believe that fire and rescue call handling and dispatching must be operated by highly trained, experienced firefighting personnel in order to have requisite judgement available for operational decisions.

HS:lw

cc: George Giebel, Chairman
Fire and Rescue Commission



LOCAL 1664

MONTGOMERY COUNTY CAREER FIRE FIGHTERS ASS'N.

11127-A New Hampshire Avenue, Silver Spring, MD 20904-2605

Telephone: (301) 681-0880 FAX: (301) 681-3743

Via FAX
3/19/93

March 19, 1993

Andrew Mansinne, Jr.
Director, Office of Legislative Oversight
100 Maryland Avenue
Rockville MD 20850

Dear Mr. Mansinne,

We are pleased to provide you with our comments on the draft of OLO Report 92-5.

Local 1664 would like to go on record as being opposed to the recommendations of the above referenced draft report. It is the position of Local 1664 that any proposal to consolidate, reorganize, privatize or civilianize the Fire and Rescue Emergency Communications Center is a subject for collective bargaining.

We have taken this opportunity to research this issue through the International Association of Fire Fighters and by our own survey of surrounding jurisdictions. The results of our survey indicate conclusively that in surrounding jurisdictions where proposals of this type are currently in effect, the results are extremely negative. We would be happy to share the results of our research into this issue should you so desire. Please contact us if we can be of further service.

Sincerely,



Landon D. Pippin, President

MONTGOMERY COUNTY CAREER FIRE-RESCUE OFFICER'S ASSOCIATION

March 15, 1993

Mr. Andrew Mansinne
Office of Legislative Oversight
Montgomery County Government

Dear Mr. Mansinne,

After reviewing the Office of Legislative Oversight Report on civilianizing the Emergency Communications Center, the Career Officers Association believes such an action would not be practical in the delivery of emergency communications.

The issue of changing the current ECC system undoubtedly is monetarily driven, but the actual cost of civilianization would far outweigh the financial savings, because of a reduction in dispatcher effectiveness, expertise and efficiency. If you will, the current fire and rescue dispatchers are "user friendly" to all participants in emergency communications in Montgomery County.

The current system of staffing ECC with trained firefighters/EMT's adds an important dimension to the successful delivery of critical emergency service. A fire and rescue incident is a dynamic event that requires accurate and pertinent information to be extracted from the caller, which in turn is properly communicated to the responders mitigating the incident. This process is much different from a police dispatch communicator. Police dispatchers generally send an officer to an event which has already occurred and requires only a report to be taken.

The savings of approximately 170,000 dollars (estimated), would be negated by the necessity of training various civilians to competently perform a fire and rescue dispatcher's task. The end result, would be a serious degradation of the present effective, safe and efficient communication system in Montgomery County.

Why would the County Government want to invest in fixing the present system which is not broke? Many Fire and Rescue Employees who demonstrate field expertise in operations, become outstanding dispatchers. This tremendous pool of personnel would be no longer available if ECC was to be civilianized.

We strongly urge that the current system remain intact and retain the Fire and Rescue Communications Center under the responsible control of the Department of Fire and Rescue Services. In our opinion, any deviation from the present system will compromise the excellent delivery of fire and rescue service to the citizens of Montgomery County.

J. P. Bauers
Chairman, MCCFR08



Montgomery County Government

March 10, 1993

Andrew Mansinne, Jr.
Director, Office of Legislative Oversight
Montgomery County Government
100 Maryland Avenue
Rockville, MD 20850

Dear Mr. Mansinne:

Thanks for sending to the Fire and Rescue Commission a draft of the OLO Report, *The Organization and Management of the Montgomery County Emergency Communications Center*. I participated and support fully the response from the Commission; however I wish to add supplementary remarks based on more than two decades familiarity with systems analysis of fire/rescue services and observations of emergency communications centers in cities and counties across the country. Though I've observed operations in the ECC, I don't presume to be truly familiar with the organization.

Backup Facility

First, OLO is to be commended for identifying a potentially serious issue by questioning whether the underground facility can function as a back up communications center. During the space program, I learned, first hand, the issue is not how a system works but how it fails. All too frequently we found it necessary to have an operational mode if the backup also failed. The excuse, "Sorry, the computer is down.", is unacceptable for dispatch of fire/rescue services. Reliable emergency communications can't be over emphasized. During a consulting assignment, a Florida fire chief told me while leading a rescue squad searching for *Hurricane Andrew* victims, he'd been fired on by police because the emergency services were operating with inadequate, storm-damaged dispatch communications.

OLO's report ought to have gone further and described the failure mode of the operating center and the plans for back up. I've been told the call takers and dispatchers revert to a manual operation. If this is the case, is the center prepared for manual dispatch? Furthermore if manual operation is the back up, the report ought to define the requisite competence for the call takers and dispatchers. Since the system must continue operation, it's during failures when the greatest demand is placed upon the personnel.

Personnel Skills & Knowledge

As for requisite skill and knowledge, I was somewhat surprised by the limited description of duties beyond the communications equipment. Fire/rescue call takers and dispatchers must be capable of communicating emergency medical instructions and procedures to callers. Some states certify EMT-D, *Emergency Medical Technician, Dispatcher*. At a minimum, fire/rescue call takers and dispatchers must possess a currently valid EMT certificate.

Another function of fire/rescue dispatch is *move up*, i.e., repositioning units to cover for responding units. One aspect of *move up* is to anticipate calls for additional resources during a major incident. You suggested field personnel do not place much emphasis on this role. I'm not surprised. Field personnel expect prompt support. Incident commanders, on the other hand will scream, if they call for additional forces and the response is delayed. If the dispatcher performs well, the additional forces will promptly arrive. However, if the dispatcher waits for a request before moving reinforcements, the incident can easily go out of control. I interpret the field personnel comments as evidence of fine performance by the ECC.

Though dispatchers operate under dispatch policies, there's much discretion in dispatch. The computer may suggest response but there's discretion during high demand such as severe thunderstorms.

These comments are intended to stress the need for trained, competent call takers and dispatchers dedicated to calls for fire/rescue services. Considering the complexity of fire/rescues services delivery in the County, knowledge and perhaps experience with field operations may be essential. If there's a desire to assign personnel to a different shift assignment, cross training may be feasible but the OLO report hasn't analyzed the requirement. There can be no instance of someone saying, "*I don't know much about EMS or fire/rescue.*"

There's a marked difference between police and fire dispatch.

Police call takers and dispatchers are continuously busy but the calls are almost always routine. A visitor can only observe and not talk to the personnel. Once in a while, when there's an emergency, e.g., officer under fire, the dispatcher talks directly to the caller and the supervisor looks on.

On the other hand, fire dispatchers become almost overloaded during a significant incident. The challenge, nationally, to thoughtful dispatch center managers is to assign duties, not time sensitive, to be interrupted during a major incident. Though folks may consider this inefficient, the dispatch function calls on a suppression force available for service more than 95% of the time. Fire suppression forces are paid to be available for prompt response. I tell clients when forces are busy extinguishing fires, they are not doing what they're paid for.

Failure of the fire/rescue dispatch function may lead to political and fiscal costs. Politically, someone may have to explain on *Nightline* why the patient died because the County did not send a medic unit when requested by an abusive caller. I watched the City of Dallas attempt to deal with this situation. Fiscally, a less visible failure mode is excessive dispatch of forces because dispatching when in doubt is bureaucratically safe. The rescue service will then experience more workload, replace apparatus more frequently and may have to place additional units in service. The projected annual saving of \$187,600 through consolidation, for example, won't balance an additional medic unit's annual cost of more than \$600,000.

Organizational Structure

If the ECC were to be consolidated, I agree with your recommendation to have an independent organization reporting to the CAO. However I sympathize with the CAO's reluctance to assume more span of control. As a minimum, the dispatch center should report to the individual responsible for public safety in the County. I find, as the association manager for the National Association of County Administrators, counties as large as Montgomery County relieve span of control burden with Assistant CAO's responsible for departmental clusters. The Public Safety Cluster is an example. Titles are sometimes disguised, such as *Director of _____ Services*, with the incumbent serving as a super department head.

Absent willingness to assume additional span of control, consolidation is not a good idea. Placing the organization within a service organization adds greatly to risk of functional failure. The downside penalties are high. Dispatch is about 2.5 percent of the County's fire/rescue budget and only about two percent when the value of volunteer services is incorporated.

Summary

- OLO identified a potentially serious problem if the back up, underground facility will not function.
- The report needs more description and analysis of ECC failure modes, how personnel will function during failures, and the requisite skills and knowledge for the positions. Until this additional analysis is performed, there's no basis to assess feasibility of ECC consolidation.
- If the ECC were to be consolidated, it should report, as an independent organization, to the CAO or an Assistant CAO for Public Safety.
- ECC consolidation benefits must be balanced against political costs of improper dispatch or fiscal costs of generating additional workload for costly operational units.

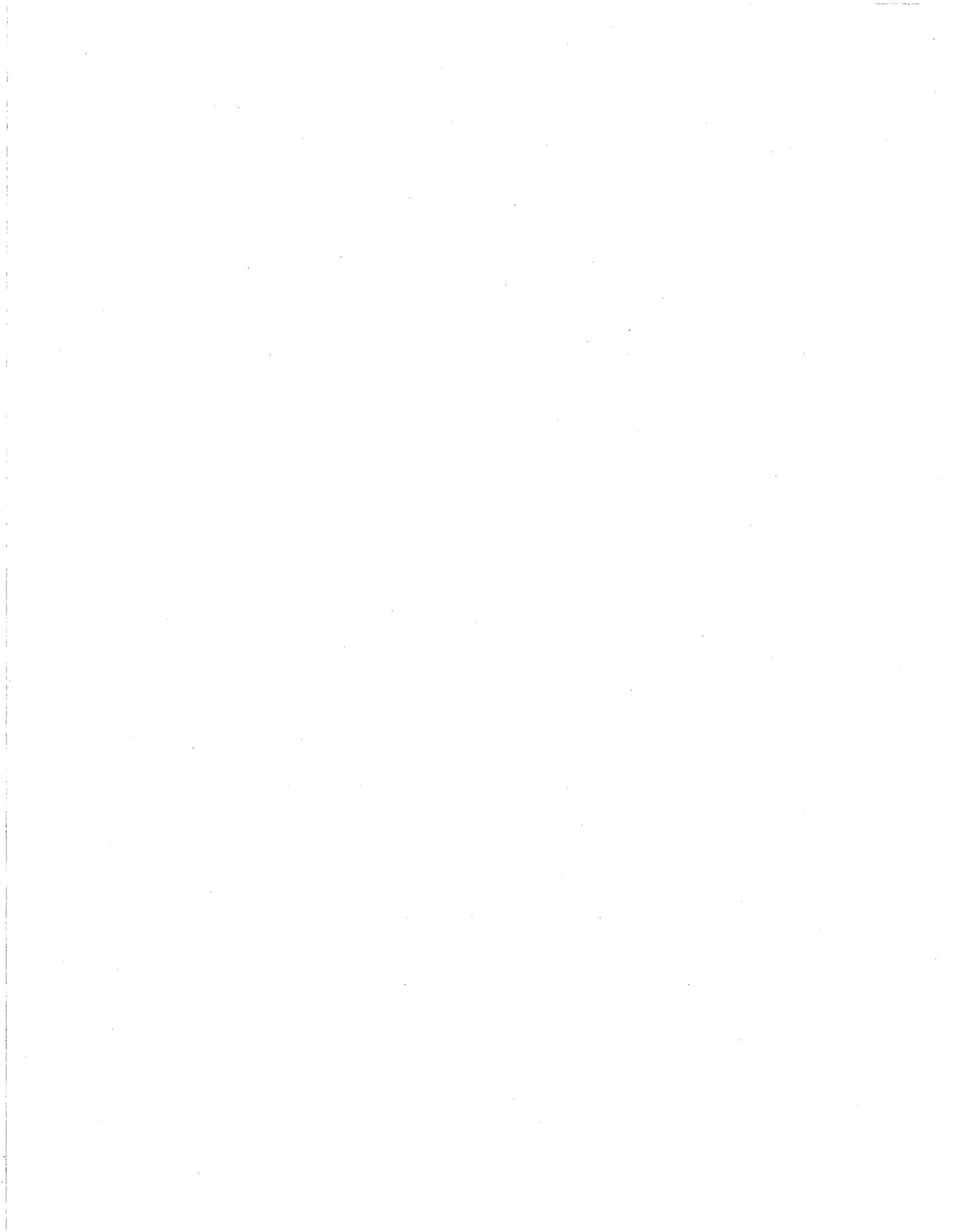
Again, thanks for the opportunity to comment.

Sincerely,

Handwritten signature of Al Siegel in cursive script.

Al Siegel, Commissioner

cc: George Giebel, Chair, Fire and Rescue Commission



**Average Annual Compensation (Salaries and Fringe)^{a)} for All Positions
Authorized in the FY93 Personnel Complement
for the Police Communications Division
and the Fire/Rescue Communications Section**

POLICE COMMUNICATIONS DIVISION

Title/Grade	Avg. Base Salary^{b)}	+ Avg. Ret. Contr.^{c)}	+ Soc. Sec. Contr.^{d)}	= TOTAL
Mgr Pol Emerg Com Ctr (Gr 27)	\$64,188	\$8,980	\$4,508	\$77,676
Ast Mgr Pol Emg Com Ctr (Gr 25)	58,903	8,241	4,431	71,575
Police Technician Superv(Gr 20)	42,344	5,924	3,239	51,507
Police Technician III (Gr 19)	38,356	5,366	2,934	46,656
Police Technician II (Gr 17)	27,387	3,831	2,095	33,313
Office Services Mgr (Gr 15)	31,603	4,421	2,418	38,442

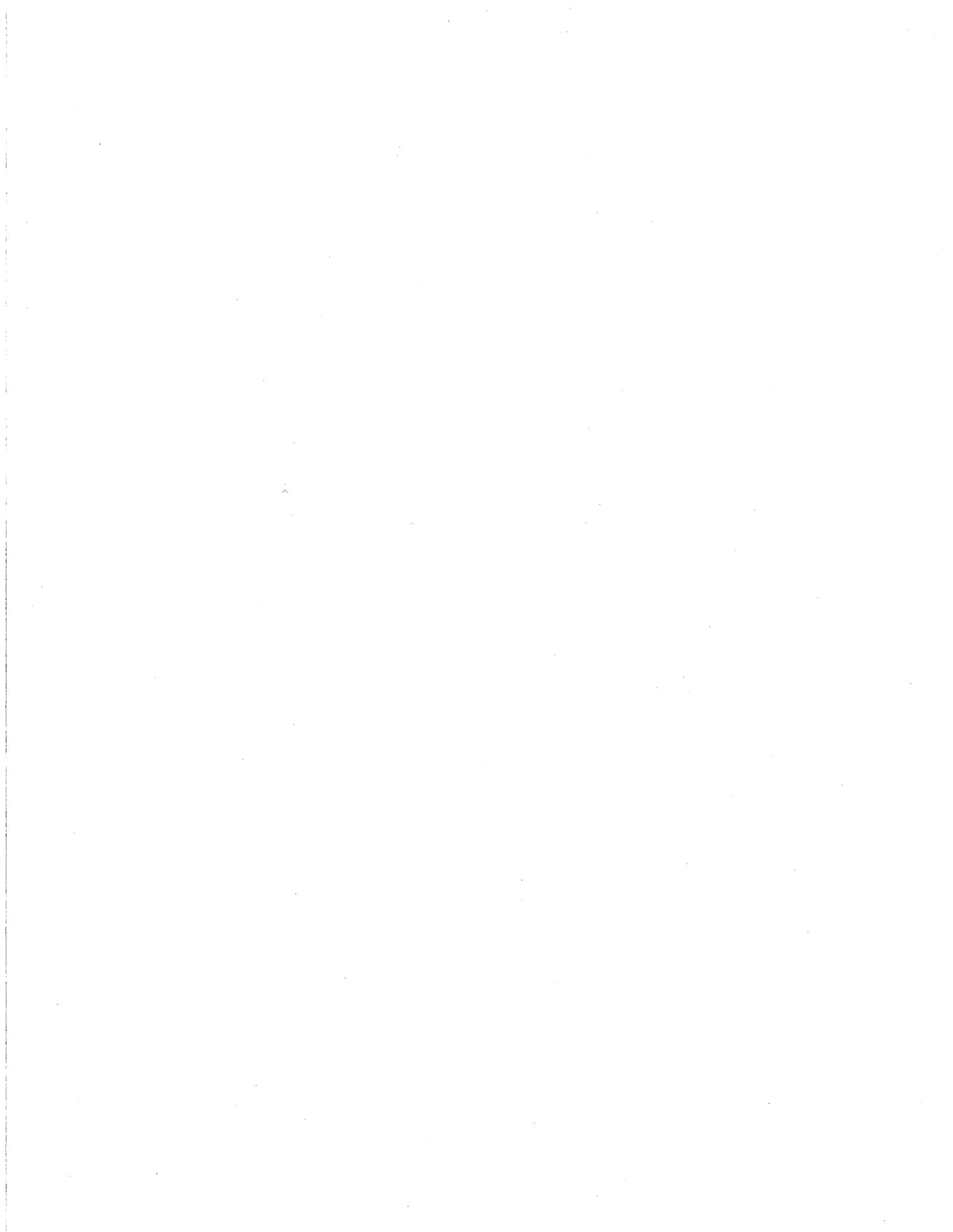
FIRE/RESCUE COMMUNICATIONS SECTION

Title/Grade	Avg. Base Salary^{b)}	+ Avg. Ret. Contr.^{c)}	+ Soc. Sec. Contr.^{d)}	= TOTAL
Fire/Rescue Captain (Gr 27)	\$66,654	\$15,444	\$4,544	\$86,642
Fire/Rescue Lieutenant (Gr 24)	52,123	12,077	3,987	68,187
Fire/Rescue Sergeant (Gr 20)	42,741	9,903	3,270	55,914
Master Firefighter/Rscr (Gr F4)	41,071	9,516	3,142	53,729
FF/Rescuer II/III (Grs F2 & F3)	30,510	7,069	2,334	39,913
F/R Comm Training Asst (Gr 17)	37,506	5,247	2,869	45,622
Principal Admin Aide (Gr 13)	26,713	3,737	2,044	32,494

Notes:

- a) Fringe does not include Group Health.
- b) Average salary of all employees in the specific class and grade from the Personnel/Payroll Data Base as of December 1992.
- c) Average FY93 County contribution to retirement groups:
 Groups A & H - non-Public Safety: 13.99%
 Groups B, E, F & G - Public Safety: 23.17%
- d) County contribution to Social Security is based on CY 1993 requirements of 7.65% of base salary up to \$57,700, plus 1.45% above \$57,700.

Sources: Approved Personnel Complement, FY93
 Personnel/Payroll Data Base as of December 1992.
 Retirement and Social Security rates from County Executive's FY93
 Budget, Vol I, page 5-6.



Procedures in the Police Communications Center for
Processing Calls for Police Emergencies*
Within the Jurisdiction of Municipalities, M-NCPPC Police,
Maryland State Police, and Federal Reservations

Rockville City Calls to the ECC from locations within the City of Rockville are dispatched to the appropriate County beat car. If a City unit volunteers to respond to the call, it is given the assignment. If a County unit is not available for a call, ECC inquires on the County frequency serving the City as to the availability of a City unit to respond.

Gaithersburg City Calls to the ECC from locations within the City of Gaithersburg are dispatched to the appropriate County beat car. City units can be dispatched to any call in the City and/or assist or backup County units as required. If a City unit volunteers to respond to a call to a County unit, the City unit is given the assignment.

Chevy Chase Village Calls to the ECC from locations within the Village are dispatched to a Village unit if it acknowledges the dispatcher's call. If the Village unit does not acknowledge after two attempts by the police dispatcher, the call is dispatched to the appropriate County beat car. Village units and/or backup County units can be dispatched by ECC to any call from Chevy Chase Village.

Takoma Park Calls to the ECC from locations within the City of Takoma Park are received by the 911 call-taker and the information is forwarded to the Takoma Park Police via telephone.

Maryland-National
Capital Park and
Planning Commission
(M-NCPPC) Police Calls to ECC that are determined to be located within an area under Commission jurisdiction are relayed via direct telephone line to the Park Police Communications Center. If the Park Police relinquishes the call in the interest of time, public safety, or other significant reason, the call will be handled by a County unit. However, calls of a serious nature, such as death, rape, robbery, extortion, kidnapping and aggravated assault, occurring within an area under Commission jurisdiction are handled by a County unit.

* For routine/nonemergency calls, the caller is instructed to call the municipality, Park Police, State Police or Federal agency direct.

Maryland State Police

Calls to ECC relating to a traffic incident that has occurred on any portion of Interstates Route I-270 and I-495 are relayed to the Maryland State Police via direct telephone line. If for any reason the State Police are unable to respond to the call, a County unit is dispatched. If the request for police service involves a personal injury, a County unit is dispatched immediately to the scene and the Maryland State Police is notified.

Federal Reservations
(with Exclusive
Jurisdiction)

Calls to ECC from locations within the boundaries of Federal Reservations with exclusive jurisdiction are referred to the appropriate reservation's security force by direct telephone; or the information may be taken and then relayed by telephone to the security force or FBI. The criteria used to decide whether or not to refer the citizen to the reservation's security force or to take the information and relay it is the potential for loss of life or serious personal injury.

**EMERGENCY COMMUNICATIONS ORGANIZATION AND OPERATIONS
IN SIX SELECTIVE JURISDICTIONS AND M-NCPPC**

<u>Jurisdiction</u>	<u>Organization</u>	<u>Operations</u>
Baltimore County, MD	<ul style="list-style-type: none">• Consolidated.• All civilian.• Civilian Chief of Communications reports to the Director, Office of Central Services.• Uniformed police and fire/rescue personnel (two each) provide liaison with their respective departments.	All incoming 911 calls are received and processed by 911 call-takers and then passed to either a civilian police or fire/rescue dispatcher. All personnel are cross-trained to work in any of the three positions: 911 call-taker, police dispatcher and fire/rescue dispatcher.
Prince George's County, MD	<ul style="list-style-type: none">• Not consolidated.• All civilian call-takers and dispatchers.• Police and fire communications are separate entities, under separate uniformed police and fire department supervisors reporting to their respective chains-of-command.	All incoming 911 calls are received by police civilian 911 call-takers. Police emergencies are processed and passed to a police civilian dispatcher. Fire/rescue emergencies are transferred by police 911 call-takers to fire/rescue civilian call-takers for processing and dispatch by a fire/rescue civilian dispatcher.
Howard County, MD	<ul style="list-style-type: none">• Consolidated.• All civilian.• By law, civilian Chief, Bureau of Communications, will report to the Director of General Services. Temporarily, the Communications Director is reporting to the County Administrator Officer.• No uniformed police or fire presence.	All incoming 911 calls are received and processed by civilian 911 call-takers and then passed to either a civilian police or fire/rescue dispatcher. All personnel are cross-trained to work in any of the three positions: 911 call-taker, police dispatcher and fire/rescue dispatcher.

Jurisdiction

Organization

Operations

Fairfax County, VA

- Consolidated.
- All civilian, augmented by seven uniformed police officers. One uniformed fire officer provides liaison between Center and Fire Department.
- Civilian Director of the Public Safety Communications Center reports to the police chain-of-command.

All incoming 911 calls are received and processed by 911 call-takers and then passed to either a civilian police or fire/rescue dispatcher. All personnel are cross-trained to work in any of the three positions: 911 call-taker, police dispatcher and fire/rescue dispatcher.

Arlington County, VA

- Consolidated.
- All civilian.
- Civilian Administrator, Emergency Communications Center, reports to the police chain-of-command.
- No uniformed police or fire presence.

All incoming 911 calls received and processed by 911 call-takers and then passed to either a civilian police or fire/rescue dispatcher. All personnel cross-trained to work in any of the three positions: 911 call-taker, police dispatcher and fire/rescue dispatcher.

Loudoun County, VA

- Not consolidated.
- Civilian 911 call-takers, fire and rescue dispatchers, and sheriff's dispatchers.
- Uniformed Captain reports to the Director, Department of Fire and Rescue services.

911 calls are received by Fire/Rescue Department civilian 911 call-takers/dispatchers. Fire/rescue emergencies are processed and dispatched by fire/rescue civilian dispatchers. Sheriff emergencies (Loudoun County has no police department) received via 911 are transferred to Sheriff's Department civilians for processing and dispatch. Sheriff also has its own seven-digit emergency number.

Jurisdiction

Park Police
Communications of the
Maryland-National
Capital Park and
Planning Commission

Organization

- All civilian.
- Civilian
Communications Section
Supervisor reports to
the Park Police
chain-of-command.
- Light duty Park
Police officers
occasionally are
detailed to work in the
communications center.

Operations

Park Police Communications
Section serves both a
communications and
reporting function. The
communications center
receives routine and
emergency transmissions
and reports from Park
Police officers, and makes
emergency and routine
dispatches. Citizen
inquiries and requests are
received via a seven-digit
telephone line.

No 911 calls come directly
to the Park Police
Communications Center.
However, 911 calls to the
County's ECC that are
immediately identified as
occurring on park property
are transferred to the
Park Police Communications
Center for processing. A
911 call once received,
processed, and identified
as an incident located in
an area under Park Police
jurisdiction can be
relayed by direct
telephone line to the Park
Police Communications
Center.

911 calls of a serious
nature (death, rape,
robbery, etc.) also result
in County Police being
dispatched.

Source: Office of Legislative Oversight.

