

NEW JERSEY

EMERGENCY MEDICAL SERVICES

HELICOPTER RESPONSE PROGRAM

Program Review  
Request for Application Process  
and  
Recommendations for Change

NJ State Department of Health

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## Executive Summary

The report provides a detailed description of all aspects of the New Jersey aeromedical program, as currently operated. This description covers three distinct components, which are transportation, medical, and communications. Also discussed are backup arrangements with out-of-state helicopter providers. Finally, data on volume, costs, and costs per run are presented. Also outlined are the recognized strengths of the current aeromedical program.

The historical background and legislative history is presented to understand the development of the helicopter response program in New Jersey. This history includes the development of the ground Mobile Intensive Care Unit statewide program, which was the forerunner of the aeromedical program. In addition, the developments leading to passage of the 1986 legislation which created the New Jersey Emergency Medical Service Helicopter Response Program are discussed.

There are a number of issues and problems which have arisen in the operation of the New Jersey helicopter response program. These include the lack of centralized communications and dispatch, high operational costs, lack of 24-hour service, low call volume in the northern part of the State, problems associated with patient billing and collection, and improving triage criteria and training.

A detailed discussion of the Request for Application process which was used to solicit proposals from private operators of aeromedical services is provided. This review outlines the RFA requirements and criteria, and explains how the RFA is designed to correct the problems in the current program. The applications which were submitted in response to the RFA are summarized, and their positive and negative points are contrasted. The applicants' financial assumptions and projections are also presented.

Options and recommendations for how aeromedical services should be provided in New Jersey in the future are offered and reviewed. After evaluating all of the information described in the report and accounting for unique demographic, geographic and provider attributes in New Jersey, the Review Committee concluded that the application process should be re-opened with a modified RFA so that additional alternatives could be explored.

### Current Program Description

The New Jersey Helicopter Response Program currently is comprised of three distinct components. They are:

1. Transportation
2. Medical
3. Communications

#### Transportation

This component is the responsibility of the NJ State Police. It consists of two Sikorsky S-76B helicopters which have medically configured interiors. These helicopters are twin engine IFR (Instrument Flight Regulations) certified and are flown by two pilots (see Appendix C). The reason for IFR/two pilot/and two engine operations is primarily for safety purposes. They include inflight emergencies, pilot incapability, stressful conditions, flying into confined areas and the ability to adjust to sudden changes to weather conditions. When the primary helicopters are out-of-service (i.e., repairs, maintenance), the service operates with backup aircraft which currently is the Bell B206L-3 Long Ranger. This aircraft is smaller and has less capability. The service now operates 16 hours per day from 7 am to 11 pm. One helicopter is located at the University of Medicine and Dentistry in Newark. The other helicopter is located at West Jersey Health Systems in Voorhees. The primary helicopter is capable of flying with two pilots, two medical crew, and two patients along with all required advanced life support equipment for patient care. Backup

helicopter capability consists of two aircraft which are flown by one pilot and has the room for two medically-trained personnel and the treatment and care of one patient. In a disaster situation the backup helicopter can transport two patients, but medical personnel are unable to provide in-flight treatment due to the limited space caused by the litter stacking arrangements. (See Appendix D for additional data on types of helicopters utilized on a national basis.)

### Medical

This component consists of the flight crew and medical equipment. The flight crew consists of one flight paramedic and one flight nurse who have received additional training to prepare them to provide ALS in the aeromedical environment. This program requires staffing of approximately 13 FTEs for the current 16 hours per day operations. The flight crews receive medical command for onscene trauma from either University Hospital in Newark or Cooper Medical Center in Camden. These hospitals are Level I Trauma Centers. The medical staff for the NorthStar program is provided by the University of Medicine and Dentistry of NJ (UMDNJ) in Newark and the medical staff for SouthStar is provided by West Jersey Health System in Voorhees. Each program receives an annual Health Services Grant to cover the medical costs (see Appendix E). During FY 1990, the NorthStar program received \$630,000 and the SouthStar program received \$570,000.

### Communications

The current program operates through two communication centers. The



center for the northern area of the state is located at the Regional Emergency Medical Communications System (REMCS) and the center for the southern area of the state is located at Gloucester County Communications Center.

These communication centers are staffed by emergency medical technicians (EMTs) that have received additional training to function as a dispatcher. One of the main functions of these centers is to dispatch helicopter resources to the scene of an emergency. The regional helicopter dispatching program responsibilities have been added to the other local dispatching responsibilities which include ambulance, rescue, police and fire services. These dispatchers are not dedicated strictly to the helicopter program. Additionally, other dispatch centers are responsible for dispatching all necessary non-medevac resources to emergency scenes within their respective jurisdiction. Therefore, they are unable to devote all of their time to dispatching helicopters since they are not solely dedicated to tracking a flight from the beginning to the end. This can cause delays and confusion especially as it relates to backup coverage, giving and receiving additional information and knowledge of the aircrafts' location at all times.

#### Backup Aeromedical Services

Realizing that all requests for helicopter assistance could not be met by the New Jersey program alone, a backup arrangement was negotiated with University MedEvac, a Pennsylvania program. This program included one helicopter based at Hahnemann University Hospital in Philadelphia and another at Lehigh Valley Medical Center, Allentown. These helicopters provided backup during the 16 hours the New Jersey service was operational.

They also provided primary service during the 8 hours the New Jersey service was not operational. Approximately a year later, a similar arrangement was made with a new program, PennStar (operated by the University of Pennsylvania, Philadelphia), which provided both onscene and interfacility flights.

Subsequently, Brandywine Health Services (PA) and Cornell University Medical Center (NY) were approved and licensed by the Department of Health to provide interfacility transfers in New Jersey (arrangements are made between the sending and receiving hospitals). They also are capable of providing onscene coverage.

Out-of-state providers are responsible for coordinating all of their communications regarding flights into New Jersey through either the Gloucester County Communications Center or the Regional Emergency Medical Communications System (REMCS), located at University Hospital, Newark. Decisions as to where patients picked up onscene are flown are made by the on-line trauma medical directors at Cooper Hospital/University Medical Center in Camden or University Hospital in Newark for their respective areas.

#### Program Volume and Costs

The New Jersey Helicopter Response Program became operational in July of 1988. Since then a total of 2,223 patients have been treated. Table I and Table II show the actual completed runs by both the NorthStar and SouthStar programs for FY 1989 through FY 1991. These tables show the total number of scene and interfacility flights.

**NORTHSTAR PROGRAM  
COMPLETED RUNS**

**TABLE I**

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>TOTAL</u>
ONSCENE FLIGHTS	118	162	262	542
INTERFACILITY FLIGHTS	135	137	118	390
TOTAL COMPLETED RUNS (16 HOUR COVERAGE)	253	299	380	932

**SOUTHSTAR PROGRAM  
COMPLETED RUNS**

**TABLE II**

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>TOTAL</u>
ONSCENE FLIGHTS	146	252	441	839
INTERFACILITY FLIGHTS	127	162	163	452
TOTAL COMPLETED RUNS (16 HOUR COVERAGE)	273	414	604	1291

Since the New Jersey Emergency Medical Services Helicopter Response Program became operational in July of 1988, we have relied upon two out-of-state helicopter response programs for backup service and for primary service during the 11 pm to 7 am period when our program is out-of-service. See Table IIa for out-of-state call volume.

#### Program Medical Costs

Table III shows the total medical costs for both programs for FY 1989 through FY 1991.

#### Total Program Costs and Costs per Run

Table IV shows the total program costs for FY 1989 through FY 1991. This total includes both the medical and transportation components of the program. The master lease payments for the helicopters will decrease to \$1.4 million in FY 1993 and will not be required at all in FY 1994. The FY 1993 payment represents the final payment for the purchase of the helicopters. Table V shows the estimated total cost per run, which was calculated by dividing the total program costs by the total completed runs for FY 1989 through 1991.

BACKUP HELICOPTER  
RESPONSE CALL VOLUME

TABLE II A

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>TOTAL</u>
<u>UNIVERSITY MEDEVAC</u>				
ONSCENE FLIGHTS	146	166	115	427
INTERFACILITY FLIGHTS	135	151	168	454
SUB TOTAL	281	317	283	881
<u>PENNSTAR</u>				
ONSCENE FLIGHTS	63	112	151	316
INTERFACILITY FLIGHTS	104	180	144	428
SUB TOTAL	167	292	295	744
<u>BRANDYWINE</u>				
ONSCENE FLIGHTS	0	3	16	19
INTERFACILITY FLIGHTS	2	7	2	7
SUB TOTAL	0	10	18	28
<u>CORNELL</u>				
ONSCENE FLIGHTS	0	0	8	8
INTERFACILITY FLIGHTS	2	2	2	2
SUB TOTAL	0	0	17	17
TOTAL UNIVERSITY MEDEVAC/ PENNSTAR/BRANDYWINE/CORNELL PROGRAMS BACKUP VOLUME	439	619	611	1669

**EMS HELICOPTER  
RESPONSE PROGRAM  
MEDICAL COSTS**

**TABLE III**

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
NORTHSTAR	642,000	630,000	600,000
SOUTHSTAR	<u>565,000</u>	<u>570,000</u>	<u>600,000</u>
TOTAL MEDICAL COSTS (16 HOUR COVERAGE)	1,207,000	1,200,000	1,200,000

**INCLUDES COMMUNICATION CENTER COSTS**

EMS HELICOPTER  
RESPONSE PROGRAM  
(ESTIMATED COSTS FOR  
16 HOUR COVERAGE)

TABLE IV

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>FY 1992</u>
HELICOPTER MAINTENANCE AND OPERATIONS	1,300,000	1,400,000	1,500,000	2,500,000
MASTER HELICOPTER LEASE PAYMENTS	1,800,000	1,800,000	1,800,000	1,800,000
MEDICAL COSTS	<u>1,200,000</u>	<u>1,200,000</u>	<u>1,200,000</u>	<u>1,200,000</u>
TOTAL	4,300,000	4,400,000	4,500,000	5,500,000



EMS HELICOPTER  
RESPONSE PROGRAM  
(ESTIMATED COST PER RUN  
FOR 16 HOUR COVERAGE)

TABLE V

	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
TOTAL PROGRAM COSTS	4,300,000	4,400,000	4,500,000
TOTAL COMPLETED RUNS	<u>526</u>	<u>713</u>	<u>984</u>
TOTAL COST PER RUN	8,175	6,171	4,573

INCLUDES MEDICAL AND  
TRANSPORTATION COSTS

## Background and Legislative History

Helicopter aeromedical services should be an integral component of a statewide emergency medical services system. It has been demonstrated that many victims of severe traumatic injury could be saved if they received prompt emergency care and rapid evacuation to a designated trauma center. In order to fully understand the development of aeromedical services in New Jersey, an explanation of the development of ground advanced life support (ALS) services is necessary.

The ground ALS system was developed in 1973 with legislation which established mobile intensive care pilot programs in New Jersey. The first programs became operational in 1975. Because of the success of the eight original pilot programs, legislation making the mobile intensive care concept permanent was passed into law in June 1979. Since 1979 until the present, the mobile intensive care unit (MICU) program has expanded statewide to include 37 hospitals operating 70 MICUs. In 1990, the program provided ALS services to 104,000 patients. (See MICU map in Appendix A.)

ALS services are an extension of the hospital bringing the capabilities of the hospital's emergency facilities to a patient in the field. Mobile intensive care units are specially equipped vehicles staffed by paramedics and mobile intensive care nurses (MICN) trained to bring ALS to the scene of an accident or medical emergency. Among those who benefit from these advanced life support services are persons suffering from cardiac emergencies, cerebrovascular accidents, trauma, poisoning, near-drowning, allergic reactions, and diabetic emergencies.

In New Jersey, all MICU services are hospital-based and physician-directed. The paramedics and/or nurses who staff the MICU have been trained to deal with life threatening emergencies. New Jersey's paramedics meet United States Department of Transportation's criteria for full paramedic status. The paramedics and mobile intensive care nurses operate under direct radio and telemetry supervision of a qualified physician.

MICUs work side-by-side with basic life support (BLS) squads which are predominantly volunteer. The MICUs are called in emergencies that require the more specialized level of care necessary to give a patient the best chance for survival. Local BLS squads transport the patient to a hospital accompanied by the MICU personnel who provides continuing advanced life support care during transport. It is a team effort which provides the highest level of emergency medical services to New Jersey's communities.

In the early 1980s, hospitals providing ground ALS proposed to also provide aeromedical services as an airborne extension of the MICU program. This private service was to be hospital based, utilizing central dispatch and on-line medical control. Patients would be charged directly for this service. While this proposal was not approved or implemented, it led to further discussion and study regarding the need for and potential effectiveness of an airborne MICU.

As a result of these discussions, West Jersey Health System filed a certificate-of-need with the New Jersey Department of Health in September of 1982 to provide an Emergency Medical Services Helicopter Response program for the citizens of southern and central New Jersey. No action was taken at that time. Additional discussions took place regarding the

potential effectiveness of this type of program. The prime sponsor, Assemblyman John Rocco, coordinated with the West Jersey Health System and introduced legislation which created the New Jersey Emergency Medical Services Helicopter Response Program. This law was enacted on September 5, 1986 (N.J.S.A. 26:2K-35) (see Appendix B). The Commissioner of Health was given the authority to designate an authorized mobile intensive care hospital and a designated regional trauma or critical care center to develop and maintain a hospital-based emergency medical service helicopter response unit. Two units were designated to provide service throughout the state of New Jersey. The NorthStar program is located at University of Medicine and Dentistry of New Jersey (UMDNJ) in Newark and the SouthStar program is located at West Jersey Health Systems in Voorhees. These units are staffed by persons specially trained in advanced life support care in the aeromedical environment.

The Division of State Police has been given the authority (N.J.S.A. 26:2K-37) to establish an emergency medical transportation service, operating and maintaining at least one dedicated helicopter for each designated helicopter response unit approved by the Commissioner of Health. A mobile intensive care advisory council was authorized to provide recommendations to the Department of Health on matters pertaining to mobile intensive care services, including the helicopter response program.

This legislative mandate allowed a vital service to be established in New Jersey. Previously, after extensive development studies, limited aeromedical service had been provided by the New Jersey State Police between 1979 and 1988. The State Police MedEvac program provided onscene and interfacility transfers for seriously ill or injured patients, but the

the helicopters had very limited space for medical equipment and personnel. There was space for one pilot, one patient and one medically-trained person. The helicopters' cramped interior space only allowed for minimal medical care to be provided. In reality, a form of air transportation and limited medical care were provided to patients. Most of these patients were in relatively stable condition. The current program has the ability to provide sophisticated medical care at the scene of an emergency and during the flight to the trauma center. The two member medical crew can provide care for two patients when necessary. The helicopter has sophisticated medical equipment built into its interior and space for additional portable medical supplies and equipment. In essence, they are now capable of providing emergency department care in the field. This level of care combined with rapid transportation has been proven to save lives.

The Office of Emergency Medical Services (OEMS) was given responsibility for developing the emergency medical services portion of the program prior to the initiation of the actual operation of the program on July 1, 1988. This consisted of developing an aeromedical provider training program and certification process, policies and procedures, and written medical protocols. OEMS also provided technical assistance in the design of the medically-configured interiors for the existing State Police helicopters and the two newly purchased Sikorsky S-76Bs (delivered in 1989). The decision to purchase the Sikorsky S-76Bs for the New Jersey program was made in compliance with state bidding procedures as specified by the Department of the Treasury. Proposals were received from only two vendors. Representatives from the Departments of Health, Law and Public Safety and Treasury served on an evaluation committee which reviewed and

recommended selection of the Sikorsky S-76B bid proposal. The Sikorsky S-76Bs were chosen based on a number of considerations. Operational safety features were predominant factors in the decision process, but size of patient compartment, speed and other performance criteria were also influential factors.

The intent of the legislation was to provide a statewide aeromedical system which could respond to all areas of New Jersey. This system would provide onscene and interfacility transfers. The service would be available to all citizens and visitors without regard to their ability to pay.

### Recognized Program Strengths

- (1) The New Jersey aeromedical program has been successful in reducing patient morbidity and mortality through a concerted effort by five different organizations working together as one unit. These organizations are: the New Jersey Department of Health, New Jersey State Police, University of Medicine and Dentistry/University Hospital (NorthStar), and Cooper Hospital/University Medical Center along with West Jersey Health System (SouthStar). This private/public partnership has one overriding goal: provide the highest level of prehospital aeromedical care for those who are ill or injured.
- (2) The training program which was developed for the aeromedical crew members meets or exceeds all recognized standards for the industry. They are in accordance with the Department of Health approved curriculum (see Appendix F).
- (3) The program is available to all residents and non-residents who require services in New Jersey, without regard to their ability to pay.
- (4) The aeromedical service provides statewide coverage.
- (5) The program has an outstanding safety record as a result of two pilot, two engine operation, pilot training program and standards for maintenance and repair of its aircraft.

- (6) A highly sophisticated medically configured aircraft with superior performance capabilities (i.e., speed, power, size).



## Program Issues

### (1) Centralization of Policy and Control

When the helicopter program was first developed, a decision was made to utilize one dispatch center in the northern part of the State and another in the southern part of the State. The rationale behind this decision was that REMCS at University Hospital, Newark, had previous experience dispatching MedEvac helicopters for interfacility flights on a limited basis. The Gloucester County Communications Center was chosen to dispatch the helicopter in the south because they had a great deal of knowledge, experience and communications capability in their area.

After three years of operation, it is evident that this arrangement has created a number of situations which cause daily operational problems. The two operations work independently of one another and have not established a unified communications system. Due to the fragmentation of the dispatchers' responsibilities, the consistency and timeliness of communications response to aeromedical concerns is compromised. There is some confusion among the ground EMS providers as to which center should be called, especially on the boundary between northern and southern New Jersey. Two dispatch centers must maintain staff and equipment which could be consolidated into one communications center. Two centers can cause miscommunication and duplication of communication, especially when more than one helicopter is called to the same accident site. Problems also arise when one area's helicopter must frequently fly into the other's service area. The current arrangement also affects the safety of the

helicopters, the crews, and patients because the dispatchers are unable to dedicate their full efforts to follow the entire flight once the helicopter is dispatched. These inefficiencies caused by the lack of centralized program control have hindered the utilization of the service on statewide basis.

(2) High Costs of Operation

All Medevac helicopter programs are expensive to operate. Generally, the programs serve as loss leaders for hospital operations due to the inherent high costs associated with air transportation. The Sikorsky S-76B helicopter is a large sophisticated aircraft which requires two pilots, costly maintenance and fuel, and other higher ancillary costs such as insurance. It has been noted by other helicopter operators that utilization of a smaller aircraft could significantly reduce operational and maintenance costs. The current program costs the State approximately \$6 million a year, including payments toward ownership of the helicopters.

(3) Lack of 24-Hour Service

The current program operates only 16 hours a day, 7 days a week. In order to provide uninterrupted service, the program will need to expand to 24-hour service. Full coverage will require an increased appropriation, modification to employee work schedules, and adjustments to manpower needs. This is necessary since backup coverage from out-of-state helicopter response programs cannot be guaranteed. In addition, out-of-state services may have to fly additional distances due to previous responses in their primary coverage area, thereby causing unavoidable delays. Therefore, it

is very important to have a primary service available on a 24-hour a day basis. This would insure that the citizens of New Jersey receive the highest quality of aeromedical care available.

(4) Low NorthStar Call Volume

It is essential that the call volume for the aeromedical program be sufficient to assure maximum efficiency and operating effectiveness. The current call volume for NorthStar has in the past been substantially less than SouthStar and was far below the desirable level given the population it serves (see Tables I and II). More recently the gap has narrowed yet call volume for SouthStar still exceeds that of the NorthStar program. The current low volume of the NorthStar program is the most significant cause of the high cost per run in the NorthStar program.

The NorthStar and SouthStar programs operate in completely different environments. NorthStar operates in a largely urban/suburban environment, except for Sussex, Warren, and Hunterdon Counties. With the high density of population and hospitals located in the northern half of the state, the decision as to whether a patient should be transported by ground or air is often a difficult one to make.

In the southern portion of the state, the helicopter response area is larger, the distance between hospitals is greater and, therefore, the use of the helicopter is higher. Where hospital density is high, ground transportation is often the most common transportation mode. However, it may not be the most appropriate mode, especially for trauma injuries. It

is important to educate ground personnel so that both helicopter and ground transportation are utilized appropriately.

The optimal call volume can only be achieved by promoting total cooperation among the large number of hospitals and trauma centers. The call volume issue and related issues were addressed in a letter to the Commissioner of Health from MONOC, a consortium of hospitals in Monmouth and Ocean Counties, (see Appendix G).

(5) Patient Billing Experience

The medical component of aeromedical services is similar to ground MICU services. Patients are currently billed for Advanced Life Support MICU services, and the hospitals operating the MICU are reimbursed by third party payers such as Medicare, Medicaid, Blue Cross, and commercial carriers. A significant payer of health care services delivered as a result of motor vehicle accidents is auto insurance companies. Recent changes in auto insurance law in New Jersey allow drivers to select their health insurance policy as the primary payer of medical expenses resulting from car accidents. A preponderance of drivers selecting this option may reduce the extent to which auto insurers pay for health care services. The amount of reimbursement for MICU services (ground based or aircraft provided) varies among the different payers in accordance with their coverage policies. Many health insurers will not cover the full cost of air ambulance services, and in some instances the service may not be covered at all.

Prior to 1990, patients receiving aeromedical services through the New Jersey Helicopter Response Program did not receive a patient bill.

Language in New Jersey's 1990 fiscal year State budget specified that the subcontractors for aeromedical services were required to seek third party reimbursement. As a result of the budget amendments, the Department of Health implemented a charge of \$535 to cover only the cost of the medical portion of the aeromedical program since the New Jersey State Police cannot bill for their services under Federal Aviation Regulations. Both NorthStar and SouthStar began billing for aeromedical services on July 1, 1990. This bill excludes any of the transportation costs associated with the programs. The following represents the billing experience for the two programs through June 30, 1991:

	Patients Billed	Total Amount Billed	Total Collection as of April 1991
NorthStar	424	\$226,890	\$14,477
SouthStar	604	\$323,140	\$97,900

Currently, the New Jersey State Police operate as a public use agency which precludes regulation by the Federal Aviation Administration (FAA) and, for safety purposes the New Jersey State Police has chosen independently to operate under Federal Aviation Regulation Part 91 General Operating Flight Rules and Regulations. The New Jersey State Police has been advised by the FAA that any charge for their air transportation service would require compliance with Federal Aviation Regulation Part 135 Air Transport Commercial Operators Certificate. This would entail additional

expenditures for equipment modifications to the helicopters and additional pilot training and supervision requirements.

The above information indicates that there may be a significant problem in collecting reimbursement from third party payers for aeromedical services. The Department of Health, the providers of the service and the third party payers will need to examine what constitutes an appropriate level of reimbursement in order to maximize the financial feasibility of this program. Another concern of the Department of Health is to assure the provision of aeromedical services to all citizens of New Jersey regardless of their ability to pay. The issue of uncompensated care must also be resolved.

(6) Improving Triage Criteria and Training

Triage of trauma patients is extremely important. Triage assures that the patient receives the highest quality of care in a timely fashion. Without adequate triage criteria education and compliance, the ground providers may not call for aeromedical services for patients who should have been flown to a tertiary care center. Without triage criteria education and compliance, no one, from the First Responders to emergency department personnel, can be held responsible for this inconsistency. An institutionalized process to educate and enforce the state's triage criteria within its medical community needs to be vigorously pursued.

Program safety has been good. Continuing safety education is a major concern. Classes to teach ground personnel how to work in the aeromedical environment have been offered on a routine basis which needs to be formally

institutionalized. Ground personnel need to understand basic safety considerations in preparing a landing zone for the helicopter. They must also be acclimated as to how the patient is loaded into the aircraft and what safety precautions are necessary. The nature of New Jersey's emergency services network with a preponderance of volunteers in the state's 567 municipalities make ongoing training of emergency service personnel a continuing concern.

### Program Goals

In response to New Jersey's fiscal crisis, the Governor was compelled to consider all possible options for reducing State expenditures and making State programs more efficient. As part of this review, the Governor determined that cost savings could potentially be achieved by making changes in the operation of the EMS helicopter response program without compromising delivery of advanced life support services.

In response to the Governor's concerns, the Department of Health solicited requests for applications from potential private providers of aeromedical emergency response services. The Request for Application (RFA), a copy of which is attached (Appendix B), was designed to achieve at a minimum the following key objectives:

- \* A statewide system with central communication and dispatch capable of providing timely aeromedical response throughout New Jersey
- \* Continuous 24-hour service, seven days a week
- \* Close coordination with New Jersey EMS providers, especially designated Level I and Level II trauma centers
- \* Provision of services to all residents, including those who are indigent or uninsured, without regard for ability to pay



- \* A financially viable program which provides cost-effective services and receives reasonable third-party reimbursement for insured patients in order to cover program costs

Consistent with these key elements, the RFA includes numerous detailed requirements regarding quality assurance, equipment, staffing, operating protocols, and financial feasibility. In addition, the RFA contains the following evaluation criteria, which were used by the Department of Health in reviewing the applications submitted:

- (1) Continuity of service- How well the applicant demonstrated its ability to transfer the operation from state to applicant operation without any break in service to the state's residents and visitors.
- (2) Quality assurance program- Required the applicant to provide a rigorous method of assessing and constantly improving the quality of the medical and aeronautical services of the program.
- (3) Financial feasibility and cost- The Department of Health was to establish a fixed rate for the reimbursement of this service based on reasonable costs for efficient service. No guarantee of reimbursement was made. The applicant was required to bill and collect third-party reimbursement and provide service to uninsured patients.
- (4) Utilization and integration with existing resources- How did the applicant propose to utilize, to the maximum extent possible, the equipment, physical plant improvements and other resources of the

existing state system and interface with the current emergency network?

- (5) Affiliation with a Level I Trauma Center- Significant consideration was given to applicants which were designated New Jersey Level I Trauma Centers or which receive medical control, support, and technical assistance from the Level I Trauma Center.

The RFA was specifically designed to develop a modified EMS helicopter response program which would address and correct each of the problems with the current New Jersey aeromedical services described in the previous section, as follows:

- (1) Helicopter: The RFA allowed the applicants to contract with private helicopter companies for any size or type of medically equipped aircraft which could provide safe, responsive, and cost effective aeromedical services. Table VI compares the most frequently used helicopters for aeromedical services. Thus, the State can choose to use helicopters which are smaller and less expensive than the Sikorsky's S-76B.
- (2) Centralized Communications and Dispatch: The RFA requires a single statewide communications center, thereby eliminating the lack of coordination and fragmentation of responsibility which are caused by two communications centers. In addition, centralizing communications will eliminate duplication of equipment and save money.

# HELICOPTER COMPARISON CHART

TABLE VI

		SIKORSKY		MESSERSCHMITT	
		<u>S-76B</u>	<u>206-L</u>	<u>BOLKOW-BLOHM GmbH</u>	<u>MBB BO-105</u>
					<u>MBB BK-117 *</u>
ENGINE	2	1	2	2	
PILOTS	1 or 2	1	1	1	1 2
IFR/VFR	IFR	VFR	VFR	VFR	VFR IFR
RANGE	400	120	300	270	
SPEED (CRUISING)	179 MPH	126 MPH	138 MPH	149 MPH	
MEDICALLY CONFIGURED	YES	NO	YES	YES	
NUMBER OF PATIENTS	2	1	2	2	
SIZE OF LANDING ZONE	110'X110'	110'X110'	110'X110'	110'X110'	

\*IF VFR CERTIFIED (REQUIRES 1 PILOT)

- (3) Reducing Costs: The RFA seeks to reduce State expenditures on the helicopter program in three ways. First, it requires applicants to seek, to the greatest possible extent, reimbursement for all components of the service from third party insurers, which will reduce the need for State subsidy. Second, it permits services to be delivered with smaller, less expensive helicopters. Third, it requires applicants to keep costs within reasonable limits established by the Department of Health. It is less expensive if there is one provider of the service since there will be lower administrative costs as well as lowered operational cost. One communication center will also increase program efficiency and reduce costs.
- (4) Full Time Service: The RFA requires the applicant to expand service hours from the current 16 hours a day to full time 24 hours a day, 7 days a week.
- (5) Call Volume: The RFA promotes increased utilization of the EMS helicopter service in three ways:
- (a) Expanding from 16 to 24-hour operation;
  - (b) Improved communications and dispatch; and
  - (c) Enhanced education and cooperation with prehospital EMS personnel, community hospitals, specialty centers, and designated trauma centers regarding field triage and protocols to insure that patients who need trauma or specialty center services receive them.

- (6) Improving Patient Billing: The RFA solicits applicants which will actively seek maximum third party reimbursement, within rates established by the Department of Health, for all aspects of the aeromedical service, including transportation costs. The applicants are also required to secure sufficient revenue to provide services to patients who are indigent or uninsured.
- (7) Improving Triage Criteria and Training: The RFA requires applicants to develop better triage criteria for use of the helicopter and to educate EMS and hospital personnel as to their appropriate application in the field. The other RFA requirements designed to reduce costs and enhance revenue will assist in funding this training.

### Summary of Applications

The RFA was disseminated to prospective applicants in late April, with completed applications due May 24.

Two applications were submitted as a result of the Request for Application (RFA) process:

**University Health System of New Jersey (UHSNJ)** is a consortium of eight teaching hospitals, including all three Level I trauma centers and three of the five Level II trauma centers. The UHSNJ application proposes a statewide system, with a northern helicopter based at University Hospital in Newark, a southern helicopter based at Cooper Hospital/University Medical Center in Camden, and a central communications center. The State Police would continue to operate the current Sikorsky helicopters during a transition period and subsequently be replaced by smaller private helicopters provided by a contractor.

**West Jersey Health System (WJHS)** is a multi-division hospital system in southern New Jersey which currently operates a MICU program and provides the Advanced Life Support staff for SouthStar. WJHS proposes to continue the SouthStar operation for southern New Jersey, utilizing a private helicopter provider for the aviation component. The program would continue to use the SouthStar hangar at Voorhees and the Gloucester County Communications Center.

Upon receipt of the applications, a Review Committee comprised of staff from the Department of Health and the Department of Law and Public Safety performed a detailed analysis of each proposal and prepared additional written questions and requests for information to which the applicants responded on June 25. Upon completion of the information gathering process, the Committee evaluated each proposal individually and made the following findings:

Positive and Negative Attributes of Each Application

UHSNJ - Positive Attributes:

- \* Statewide proposal
- \* The applicant consortium included all Level I Trauma Centers and three of the five Level II Trauma Centers
- \* The applicant proposed one central statewide dispatch center
- \* Applicant had experience operating NorthStar program

UHSNJ - Negative Attributes:

The application failed to comply with three of the minimum requirements in the RFA:

- \* Did not utilize existing resources, i.e., the hangar at West Jersey, Voorhees

- \* Did not specify triage protocols for onscene flights
- \* Did not describe where the statewide communications center would be located or how it would operate

In addition, the application had the following weaknesses:

- \* Total program costs are high
- \* Long transition period
- \* Required a large state government subsidy
- \* Required full reimbursement from third party payers
- \* Required full reimbursement for uncompensated care
- \* Required guarantee of \$250,000 operating margin

**WJHS - Positive Attributes:**

- \* Projected operating costs were reasonable
- \* Reasonable staffing projections
- \* Reasonable Communications Center costs
- \* Applicant had experience operating SouthStar program



- \* Short transition period

**WJHS - Negative Attributes:**

- \* The application failed to comply with the RFA requirement to propose a single statewide central dispatch/communication center.
- \* Service was limited to southern New Jersey, rather than providing statewide coverage
- \* A state government subsidy is required
- \* Required full reimbursement from third party payers
- \* Required reimbursement for uncompensated care

## Financial Assumptions of Applications

University Health System of New Jersey (UHSNJ) and West Jersey Health System (WJHS) in response to the Request for Application (RFA) included cost, revenue and volume projections which would determine the financial feasibility for implementing the aeromedical program. The cost projections for UHSNJ include providing 24-hour coverage on a statewide basis, whereas the cost projections for WJHS include providing 24-hour coverage for only the southern part of the State. However, the financial assumptions specified by both applicants will require some form of subsidy by the State of New Jersey in order to implement the program. The following represents the financial assumptions for both applicants.

### (1) University Health System of New Jersey

- \* UHSNJ is requesting a subsidy from the State of New Jersey for the initial capitalization of the program of \$1,850,000. This subsidy would be repaid over a period of five years. This amount was based upon UHSNJ's assumption that it would take five months to begin collecting patient revenue. However, in the event that the program does not meet its revenue projections due to a shortfall in volume, UHSNJ would request a deferral in the repayment of the capitalization grant, until such time as the program's volume can meet its cost of operations and generate the necessary operating margin to fund the repayment.

- \* UHSNJ is requesting that the program operate with minimum annual profit margin of \$250,000. To the extent that UHSNJ's fees do not generate this operating margin it will require a subsidy from the State of New Jersey.
- \* UHSNJ is requesting full reimbursement for uncompensated care associated with this service either by a subsidy from the state of New Jersey, or through the Uncompensated Care Trust Fund.
- \* UHSNJ has based its entire reimbursement structure on the assumption that all third party payers will provide full reimbursement for aeromedical services, including any cost shifts for uncompensated care and Medicare limitations.
- \* UHSNJ and the State of New Jersey will develop a transition plan.

(a) Projected Total Operating Expenses (UHSNJ)

UHSNJ in order to estimate the anticipated operating expenses for the provision of aeromedical services presented three scenarios 1-A, 1-B, and 1-C in their application.

(b) Scenario 1-A UHSNJ

This scenario is based upon UHSNJ's assumption that it will be allowed to operate the two state owned Sikorsky helicopters during a transition period. UHSNJ estimates that the total

operating expenses for the transition period would be \$4,097,009 and the first full year of operation would cost \$6,422,284.

UHSNJ is projecting 1,300 flights during the transition period and anticipates a volume increase of 10% or 1,430 flights during the first full year of operation. However, the applicant did not substantiate how they arrived at the 10% projected increase. This would yield an unsubsidized break even cost per flight during the transition period of \$3,344 and an unsubsidized break even cost per flight of \$4,666 for the first full year of operation.

(c) Scenario 1-B UHSNJ

This scenario includes the use of three used MBB BK-117 B1 helicopters. UHSNJ estimates that in the first year of operation the total operating cost will be \$5,255,132. This assumes a volume projection of 1300 flights and an unsubsidized cost per flight of \$4,235, and no additional increases in volume over the next three years.

(d) Scenario 1-C UHSNJ

This scenario is similar to 1-B except that it includes a 15% increase in volume over the first year for the next three years. This 15% is an estimate by the applicant without any information as to how this percentage was arrived. The total operating cost in the first year of operation is estimated to be \$5,329,256,

assumes 1300 flights and projects an unsubsidized cost per flight of \$4,292.

(2) West Jersey Health System

- \* WJHS is requesting that the Department of Health provide them with a Health Service Grant of \$600,000 payable in six months of FY92. Of this amount, WJHS would repay \$306,000 in three installments during the months of April, May and June of 1992. The remaining \$294,000 would be reimbursed by the State of New Jersey.
- \* WJHS is requesting that a billing rate be established that would enable the program to recover any initial capitalization costs.
- \* The new billing rate should be effective July 1, 1991 and continue through the first six months to pay programmatic costs and provide working capital for the privatization of the program.
- \* The patient charge should be adjusted every six months for the first 18 months of operation and adjusted every January to cover the total operating costs in terms of a break-even analysis.
- \* All fees collected by the program during FY91 should be returned or retained by the program for start-up costs.

- \* Fees billed before July 1, 1991 but uncollected prior to that date should be retained by the program upon collection.
- \* The Department of Health should urge all third party payers to pay the rate established by the Department of Health for aeromedical services.
- \* The Department of Health should allow a carry forward of unexpended grant funds.
- \* WJHS is requesting that uncompensated care be reimbursed through the Uncompensated Care Trust Fund.

West Jersey Health System presented two financial options which were based on a form of profit and loss break even analysis.

	Type of Helicopter	Total Cost	Volume	Cost per Flight
Option 1A	MBB BO-105	\$1,597,000	666	\$2,398
Option 2A	MBB BK-117	\$2,030,080	666	\$3,048

The difference between the two options is the cost of operating a small helicopter (MBB BO-105) versus a larger helicopter (MBB BK-117). The main difference between the two helicopters is the size of the patient compartment. Many programs across the country prefer the MBB BK-117 mainly for this reason.

### Options and Recommendations

After meeting to discuss and review two applications, the Review Committee considered several options for designating an EMS Helicopter Response Program for New Jersey:

- (1) Approve the applications, as submitted or with modifications.  
The choices include:
  - (a) approving the UHSNJ application for a statewide system and denying the WJHS application;
  - (b) approving the UHSNJ application for the north and the WJHS application for the south; or
  - (c) negotiating with the applicants to combine their applications into a single program.
- (2) Deny both applications and continue the current program until the debt service on the Sikorsky helicopters is fully paid.  
Then, reexamine the issue of aircraft selection to reduce operating cost.
- (3) Deny both applications, close down the NorthStar/SouthStar programs and discontinue aeromedical services entirely due to costs.

- (4) Continue to operate the NorthStar and SouthStar programs with FY92 funding while reopening the application process with a modified RFA. The RFA would request applications from additional applicants, including out-of-state programs. UHSNJ and WJHS will be permitted to reapply. [Note: Included in the FY92 approved budget is language requiring the Department of Health to have the Helicopter Response Program subcontractors seek reimbursement through third party billing (see Appendix H). The subcontractors will bill the third parties directly and will retain revenues. The Department of Health will monitor third party collections by the subcontractors and prorate the Health Services Grants to reflect revenues from third party billing to achieve the legislative intent of the budgetary language. The Department of Health may choose to use third party billing for program enhancement. Any enhancement may only be implemented with prior Department of Health approval.]

After meeting and discussing the advantages and disadvantages of these options, the Review Committee recommends Option 4, re-opening the application process, for the following reasons:

- \* Options 1(a) and 1(b) were rejected because neither application was fully responsive to the RFA requirements, for the reasons outlined earlier, and thus should not be approved as submitted.
- \* Option 1(c), negotiating with the current applicants to modify or combine their proposals, was considered. However, it was



determined that such modifications could be made in the re-application process.

- \* Option 2, continuation of the current program without further exploration of alternatives was also rejected because of the unacceptable cost burden on the State budget. In addition, it was the Committee's assessment that the potential for providing high quality aeromedical services more efficiently and at substantially less cost to taxpayers had not been fully investigated.
- \* Option 3, discontinuation of aeromedical services was found to be unacceptable because of the potential loss of life and the established public need for such services in order to ensure high quality trauma and critical care services in New Jersey.
- \* Option 4 was chosen for two reasons:

First, sufficient funds have been included in the FY1992 budget to continue operation of the current program for an additional period beyond July 1, 1991. Therefore, the Department of Health has additional time to make an appropriate decision.

Second, other potential aeromedical providers, both in New Jersey and out-of-state, have indicated interest in submitting applications if they are permitted to do so. Some of these prospective applicants have extensive

experience in financing and operating aeromedical programs without public subsidies. The Committee felt that it would be useful to compare applications which reflect this experience with those already submitted.

APPENDIX A

**NEW JERSEY**  
**DEPARTMENT OF HEALTH**  
**OFFICE OF EMERGENCY MEDICAL SERVICES**  
**AEROMEDICAL / TRAUMA CENTERS**

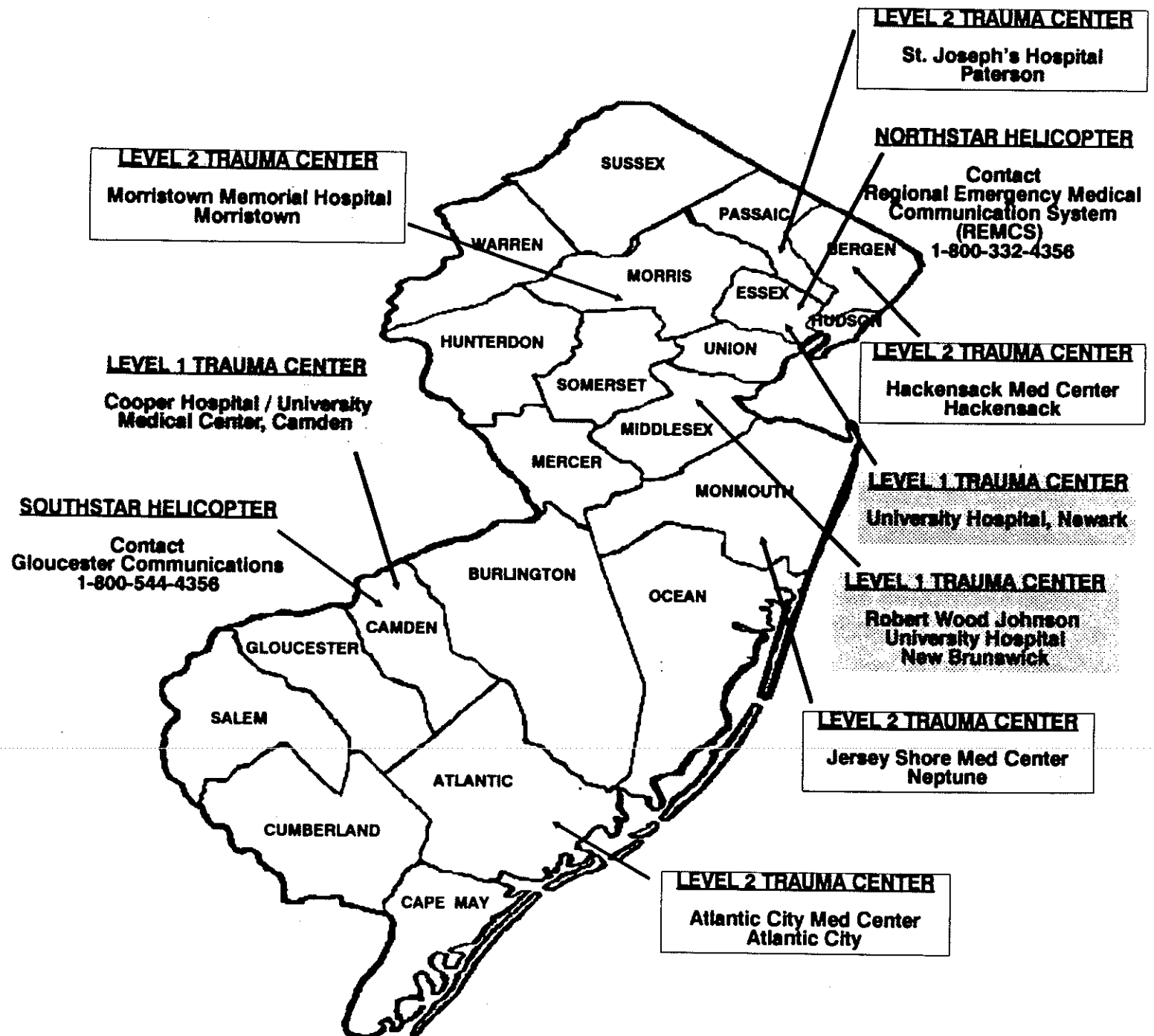
363 WEST STATE STREET

CN 364

TRENTON, NEW JERSEY 08625

609-292-6789 FAX 609-292-3580

George Leggett, Chief Administrator



**WHAT INFORMATION IS NEEDED TO HAVE THE HELICOPTER DISPATCHED?**

ONCE THE NEED FOR AN EMS HELICOPTER TO BE DISPATCHED IS DETERMINED, DIAL: IN AREA CODE (609) 1-800-544-4356  
IN AREA CODE (201) 1-800-332-4356

**PROVIDE THE COMMUNICATIONS CENTER WITH THE FOLLOWING INFORMATION:**

- \* Communications Center's name
- \* Call back number
- \* County name
- \* Municipality name
- \* Nature of incident
- \* Location of incident with cross streets
- \* Local weather conditions
- \* Requesting unit number or name
- \* VHF communications frequency
- \* Operating number of the LANDING ZONE COORDINATOR
- \* Number of patients
- \* Approximate age and sex
- \* Number of patients who are entrapped
- \* Type and extent of injuries
- \* Vital signs if possible
- \* Nearest proposed landing site to the incident which is at least 110 feet in diameter and free of overhead obstructions.
- \* Any nearby landmarks such as radio or water towers

**HOW DO WE COMMUNICATE WITH THE HELICOPTER?**

Depending on the area of operations, NORTHSTAR AND SOUTHSTAR will usually communicate with ground units on New Jersey Fire Net (154.265 MHz.), JEMS 3 (155.280 MHz.), JEMS 2 (155.340 MHz.), or JEMS/SPEN 4 (153.785 MHz.). This will allow police, fire and/or EMS personnel to provide the pilot and medical crew with essential information.

In the event these frequencies are not available at the scene, other VHF frequencies will need to be designated by the calling party which can be tuned in by the helicopters on their multichannel VHF radios. All communications to the helicopter must be operated in the carrier squelch mode.

Whenever a request is made for the helicopter, the calling Party should be prepared to identify the VHF landing zone frequency and the radio call sign of the LANDING ZONE COORDINATOR. Communications from the helicopter to the ground will be established as soon as the aircraft is in range. Communications between the New Jersey State Police helicopters and the NORTHSTAR and SOUTHSTAR Communications Centers will be on the State Police 800 MHz. Trunked Communications System.

**Karen Halupke, Coordinator OEMS Operations**



**NEW JERSEY  
DEPARTMENT OF HEALTH  
OFFICE OF EMERGENCY MEDICAL SERVICES  
OPERATIONS**

APPENDIX A-4

363 WEST STATE STREET

CN 364

TRENTON, NEW JERSEY 08625

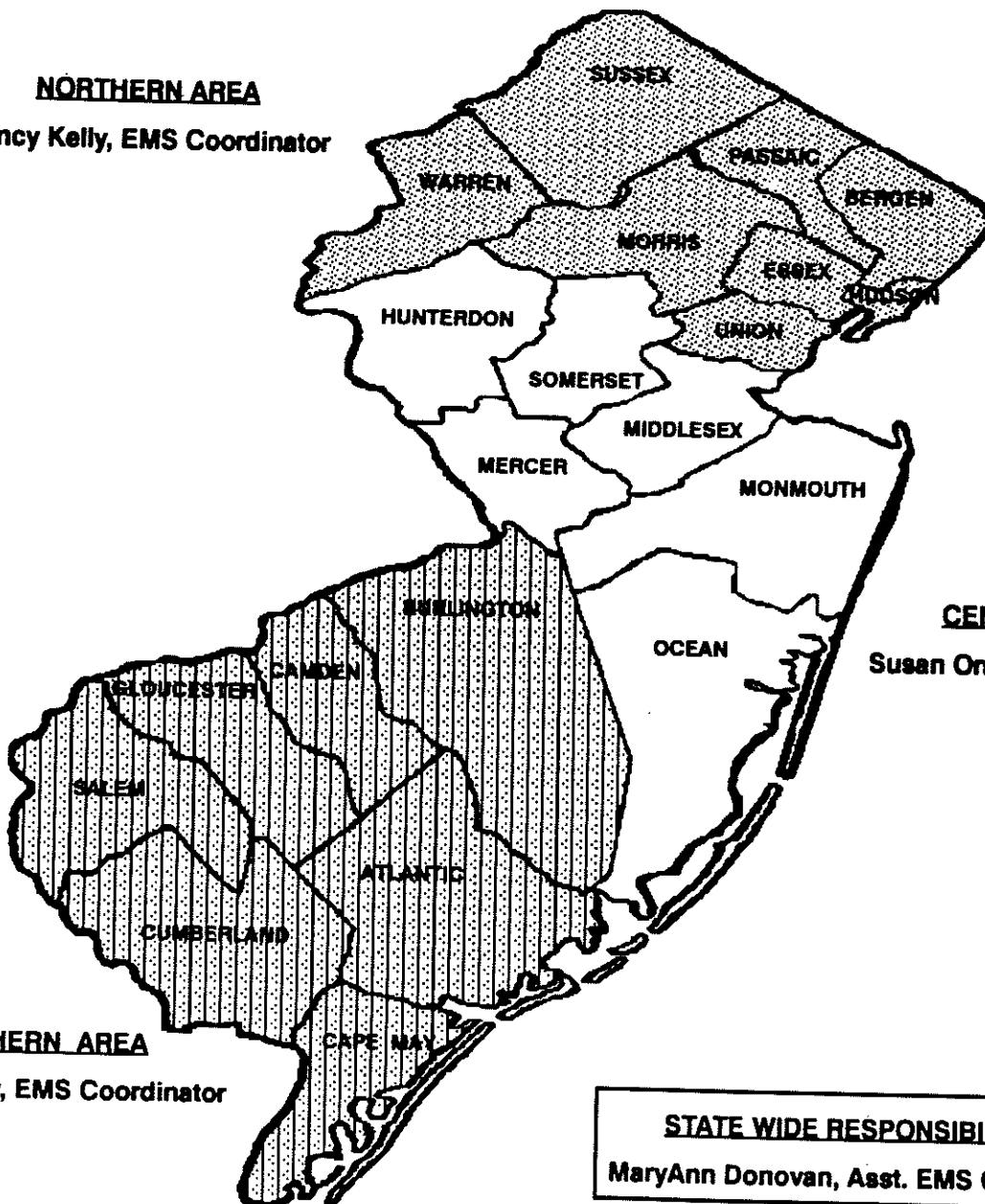
609-292-6789 FAX 609-292-3580

George Leggett, Chief Administrator

Karen Halupke, Coordinator OEMS Operations

**NORTHERN AREA**

Nancy Kelly, EMS Coordinator



**CENTRAL AREA**

Susan Orr, EMS Coordinator

**SOUTHERN AREA**

Ray Sweeney, EMS Coordinator

**STATE WIDE RESPONSIBILITIES**

MaryAnn Donovan, Asst. EMS Coordinator

**NEW JERSEY  
DEPARTMENT OF HEALTH  
OFFICE OF EMERGENCY MEDICAL SERVICES  
EMS SPECIAL SERVICES**

**363 WEST STATE STREET**

**CN 364**

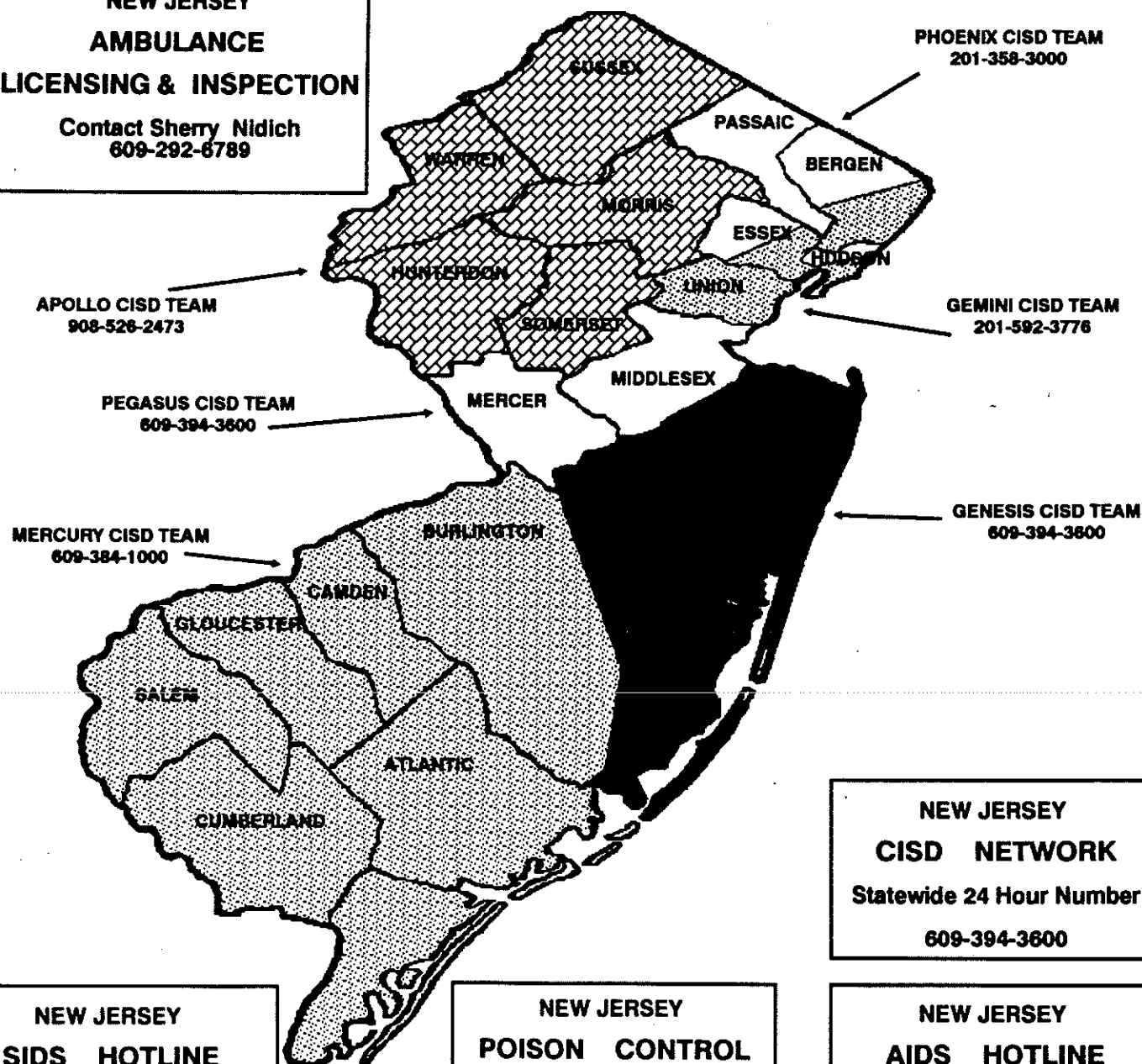
**TRENTON, NEW JERSEY 08625**

**609-292-6789 FAX 609-292-3580**

**George Leggett, Chief Administrator**

**APPENDIX A-5**

**NEW JERSEY  
AMBULANCE  
LICENSING & INSPECTION**  
  
Contact Sherry Nidich  
609-292-6789





State of New Jersey  
DEPARTMENT OF HEALTH

CN 360

TRENTON, N.J. 08625-0360

FRANCES J. DUNSTON, M.D., M.P.H.  
STATE COMMISSIONER OF HEALTH

**A T T E N T I O N :   A L L   I N T E R E S T E D   P A R T I E S**

The State of New Jersey is soliciting requests for application for providers of aeromedical emergency response services. Instructions for the application to provide this service are included in this package. Applicants should complete the enclosed application in accordance with the instructions provided herein and return the completed application no later than May 24, 1991 to the following address:

New Jersey State Department of Health  
Health-Agriculture Building  
John Fitch Plaza  
CN 360, Room 604  
Trenton, NJ 08625  
FAX: (609) 292-3780  
ATTENTION: T. Bogue

This application package includes the following:

- 1) A description of the evaluation criteria and the process which will be used for evaluation of the applications.
- 2) Minimum requirements which must be met by all applicants for these services.
- 3) Instructions for completing the application for designation as a New Jersey Emergency Medical Service Helicopter Response Program.
- 4) The three (3) page Application form.
- 5) Selected excerpts of N.J.S.A. 26:2K-35 et.seq.
- 6) Selected excerpts of N.J.A.C. 8:40-7

Questions regarding the application process should be directed in writing or by telephone to:

George Leggett, Chief, Emergency Medical Services  
New Jersey State Department of Health  
CN 364  
Trenton, NJ 08625  
(609) 292-6789  
FAX: (609) 292-3580



**THE NEW JERSEY EMERGENCY MEDICAL SERVICE HELICOPTER RESPONSE PROGRAM**

The need for an aeromedical transport system in New Jersey is well established. Such a system is an essential component of the statewide trauma system planned to serve New Jerseyans into the next century. PL 1986, c. 106, requires the Commissioner of Health to designate at least two aeromedical response units to render life support services to accident and trauma victims, and to provide emergency medical transportation. With the recent expansion of the statewide trauma network, the need for ongoing aeromedical support is more important than ever. The state of New Jersey has provided financial support, technical assistance and regulatory oversight to the current providers of these services since the inception of the program in 1987.

The State seeks to assure the continued operation of high quality, affordable emergency aeromedical services, which are accessible to all New Jerseyans. Toward that end, the state is now soliciting requests for applications from potential providers of aeromedical emergency response services. The successful applicant should be able to clearly demonstrate the ability to achieve at a minimum the following objectives:

- \* the provision of continuous services during the transition from state to "private operation"
- \* quality assurance safeguards which will be ongoing to assure a satisfactory level of performance
- \* financial viability of the program, to include the provision of emergency aeromedical services to indigent residents requiring these services
- \* compliance with the Minimum Requirements.

## ATTACHMENT 1

## EVALUATION

Upon receipt of the applications, a review committee comprised of Department of Health staff will perform a detailed analysis of each proposal and will prepare additional written questions and requests for information, to which the applicant will be asked to respond. Upon completion of the information gathering process, the committee will evaluate each proposal individually. The review will be conducted according to the following schedule:

- \* May 24, 1991 - Deadline for filing.
- \* June 3, 1991 - Department of Health to forward additional questions regarding the application to the applicant.
- \* June 14, 1991 - Deadline for applicant's response to Department of Health questions.
- \* June 24, 1991 - Department of Health committee recommendations forwarded to the Commissioner of Health.
- \* July 1, 1991 - Anticipated award of designation.

The committee will base their evaluation and ranking of each applicant's program on represented performance in the categories:

- 1) Continuity of service- How well has the applicant demonstrated its ability to transfer the operation from state to applicant operation? Is there a satisfactory and realistic assessment of the obstacles to a smooth transition and how does the applicant propose to address these obstacles? As a result of the proposal will there be any break in service to the state's residents and visitors?
- 2) Quality assurance program- Will the applicant provide a rigorous method of assessing and constantly improving the quality of the medical and aeronautic services of the program? Who will be responsible for this program and what is its likelihood of success? Included in this category will be an assessment of the applicant's ability to comply with the equipment and personnel requirements of the program.
- 3) Financial feasibility and cost- The Department of Health will establish a fixed rate for the reimbursement of this service. Since this service will not be eligible for guaranteed reimbursement through the hospital rate setting system of New Jersey, how will the applicant bill for these services? How will indigent patients benefit from this service? What is the likely cost of the service and, given the estimated volumes, how likely is the ongoing success of the program?
- 4) Utilization and integration with existing resources- Does the applicant utilize, to the maximum extent possible, the equipment, physical plant improvements and other resources of the existing state system. If not, the applicant should demonstrate improved or more economical service as a result. Does the applicant interface with the current emergency network and how will the emergency network be able to access the aeromedical services provided by the applicant?

- 5) Affiliation with a Level I Trauma Center- Significant consideration will be given to applicants which are designated New Jersey Level I Trauma Centers or applicants which have a written and signed agreement with a designated New Jersey Level I Trauma Center(s) which guarantees that the Level I Trauma Center will provide medical control, support, technical assistance and full participation in the aeromedical service program as described by the applicant.

Subsequent to the committee's evaluation a recommendation will be made by the committee to the Commissioner of Health for her review and action. All applicants will receive written notification of the Commissioner's decision regarding their application. Upon designation the successful applicant will initiate the transition of the service according to a schedule mutually agreed upon between the Commissioner of Health and the applicant.

## ATTACHMENT 2

## MINIMUM REQUIREMENTS

1. Operate and maintain a licensed air ambulance service 7 days-a-week, 24 hours-a-day, in accordance with N.J.S.A. 2K-35. et seq, and N.J.A.C. 8:40-1.1 et seq. (attached). Services shall be dedicated to New Jersey and shall begin as soon as feasible after the designation process has been completed.
2. Secure a private vendor capable of providing the aviation component of the helicopter response program.
3. Provide all communications through a single central dispatch communication center.
4. The applicant must be one of the following:
  - a) A designated New Jersey Level I Trauma Center.
  - b) A New Jersey hospital(s) with an approved Mobile Intensive Care program.
  - c) A New Jersey hospital authorized by the Commissioner of Health to provide regional critical care services.
5. The applicant shall provide for medical control for patients in their care by a New Jersey designated Level I Trauma Center.
6. The applicant may involve MICU hospitals, helicopter companies or communication centers in order to provide helicopter response services. To the extent possible, applicants shall identify contractors which are expected to provide these services.
7. The applicant should demonstrate its ability to provide continuity of service during the transition from state operation to private operation of the helicopter response program.
8. The applicant should maximize the use of existing resources for providing aeromedical service.
9. The applicant shall comply with the staffing requirements found in N.J.S.A. 26:2K-36.b.
10. The applicant shall describe the location and arrangements for housing the helicopter(s) and crew.

11. The applicant shall supply and maintain medical equipment in compliance with the helicopter ambulance requirements found in N.J.A.C. 8:40-7 (attached).
12. The applicant shall operate in accordance with the Department of Health dispatch protocols, and operational policies and procedures.
13. The applicant shall submit proposed triage and transfer protocols.
14. The applicant will develop a mass casualty incident plan in order to cooperate with the Department of Health and the New Jersey State Police for radiation emergencies and natural or manmade disasters.
15. Provide educational presentations as necessary for emergency services personnel concerning appropriate and safe use of the helicopter.
16. The applicant will be required to provide program evaluation information as specified and requested by the Department of Health, Office of Emergency Medical Services. The information requested will be utilized to evaluate services provided and to assess compliance with the requirement of this RFA. The program will be subject to inspections by the Department of Health.
17. The applicant must develop a system of ongoing quality assurance for aeromedical crew performance, medical command performance and helicopter safety; subject to approval of the Department of Health, Office of Emergency Medical Services. This will be the responsibility of the designated program medical director.
18. If designated, the applicant will participate in the Mobile Intensive Care Unit subcommittee of the Commissioner's Emergency Medical Services Council.
19. The applicant shall provide helicopter response services to all persons without regard to race, sex, ethnicity, ability to pay, or source of payment.

## ATTACHMENT 3

APPLICATION FOR DESIGNATION AS A  
NEW JERSEY EMERGENCY MEDICAL SERVICE HELICOPTER RESPONSE PROGRAM

General Instructions

1. Five copies of the application shall be submitted and received at the Department of Health no later than May <sup>24</sup>15, 1991.
2. Please address/deliver applications as follows  
  
New Jersey State Department of Health  
Health-Agriculture Building  
John Fitch Plaza  
CN 360, Room 604  
Trenton, NJ 08625  
  
Attention: T. Bogue
3. There is no application fee.
4. The attached three (3) page application form shall be completed and submitted. Insure that the application package includes at a minimum:
  - a. Cover sheet, signed and dated.
  - b. Projected Staffing Table
  - c. Financial Data, including annual pro forma operating expenses and projected runs.
5. The applicant shall also submit a project narrative, specifically describing how the applicant will comply with each of the minimum requirements in the RFA. This narrative shall include a timetable beginning on the date of designation for implementation of the aeromedical service. In addition, the narrative should identify any contractors to be utilized in providing the service. Any written draft contract materials should be attached. If multiple hospitals are involved, the narrative should describe the role played by each hospital and the relationships among them. Proposed written triage and transfer protocols should be attached.

## ATTACHMENT 4

cover page

New Jersey State Department of Health

APPLICATION FOR DESIGNATION OF  
EMERGENCY MEDICAL SERVICES HELICOPTER RESPONSE PROGRAM

Name of Hospital	
Street Address	
County	Zip Code
Type of Hospital	
Chief Executive Officer	
Contact Person	Telephone Number
Title	

The applicant gives assurance that the attached statements and tables are complete and correct to the best of the applicant's knowledge and belief.

RESPONSIBLE OFFICER

TITLE

SIGNATURE

DATE

-2-

**Projected Staffing**

Provide a list of the type, number of Full Time Equivalents (FTE), and estimated annual salary of the personnel required to staff the helicopter response program.

JOB TITLE	ESTIMATED ANNUAL SALARY	NUMBER OF F.T.E.	TOTAL SALARY
TOTAL:			



Financial Data

To provide a basis for the Department of Health to establish a rate to be charged per helicopter run, the following information is being requested.

1. The applicant shall provide the data on estimated annual expenses of operating the aeromedical service, as follows:

COMPONENTS OF PROGRAM:

<u>Expense Item</u>	<u>Medical</u>	<u>Transportation</u>	<u>Communications</u>	<u>Total</u>
Salaries				
Fringe Benefits				
Rent/Lease				
Capital equipment depreciation				
Office Expense				
Operating Expense				
Contractors				
Insurance				
Indirect Costs				
Other				
TOTAL				

"Medical" is for all costs associated with providing Advanced Life Support services at the scene and in flight.

"Transportation" is for all costs associated with flying and maintaining the helicopter.

2. For each helicopter or area of the State, the applicant shall project the annual number of runs or flights provided by the aeromedical service when fully operational, broken down by payor and type as follows:

NUMBER OF RUNS:

<u>Payor</u>	<u>On Scene</u>	<u>Interfacility Transfers</u>	<u>Total</u>
Medicare			
Medicaid			
Blue Cross			
HMO			
Commercial Auto			
Commercial Health			
Self Pay			
Indigent			
TOTAL			

The applicant shall provide a specific explanation of the data and methodology utilized to make these volume projections.

3. A three year projection of the financial performance of the program, including revenue by payor and a pro forma income and expense statement.

N.J.S.A.

### EMERGENCY MEDICAL SERVICE HELICOPTER RESPONSE PROGRAM

#### 26:2K-35. Definitions

As used in this act:

- a. "Commissioner" means the Commissioner of the Department of Health.
- b. "Dispatch" means the coordinated request for and dispatch of the emergency medical service helicopter response unit by a central communications center located in the service area, following protocols developed by the mobile intensive care hospital, the regional trauma or critical care center, the commissioner and the superintendent.
- c. "Emergency medical service helicopter response unit" means a specially equipped hospital-based emergency medical service helicopter staffed by advanced life support personnel and operated for the provision of advanced life support services under the medical direction of a mobile intensive care program and the regional trauma or critical care center authorized by the commissioner.
- d. "Emergency medical transportation" means the prehospital or inter-hospital transportation of an acutely ill or injured patient by a dedicated emergency medical services helicopter response unit operated, maintained and piloted by the Division of State Police of the Department of Law and Public Safety pursuant to regulations adopted by the commissioner under chapter 40 of Title 8 of the New Jersey Administrative Code.
- e. "Medical direction" means the medical control and medical orders transmitted from the physician of the mobile intensive care hospital or from the physician at the regional trauma or critical care center to the staff of the helicopter. The mobile intensive care unit coordinating center and regional trauma or critical care center shall have the ability to cross patch and consult with each other as approved by the commissioner.
- f. "Mobile intensive care hospital" means a hospital authorized by the commissioner to develop and maintain a mobile intensive care unit to provide advanced life support services in accordance with P.L.1984, c. 146 (C. 26:2K-7 et al.).
- g. "Regional trauma center" means a State designated level one hospital-based trauma center equipped and staffed to provide emergency medical services to an accident or trauma victim, including, but not limited to, the level one trauma centers at the University of Medicine and Dentistry of New Jersey-University Hospital in Newark and the Cooper Hospital/University Medical Center in Camden.
- h. "Critical care center" means a hospital authorized by the commissioner to provide regional critical care services such as trauma, burns, spinal cord, cardiac, poison or neonatal care.

**26:2K-36. Emergency medical service helicopter response program; establishment; units; staff**

a. There is established the New Jersey Emergency Medical Service Helicopter Response Program in the Division of Local and Community Health Services of the Department of Health. The commissioner shall designate a mobile intensive care hospital and a regional trauma or critical care center which shall develop and maintain a hospital-based emergency medical service helicopter response unit. The commissioner shall designate at least two units in the State, of which no less than one unit each shall be designated for the northern and southern portions of the State, respectively.

b. Each emergency medical service helicopter response unit shall be staffed by at least two persons trained in advanced life support and approved by the commissioner. The staff of the emergency medical service helicopter response unit shall render life support services to an accident or trauma victim, as necessary, in the course of providing emergency medical transportation.

L.1986, c. 106, § 2.

**Historical Note**

Effective date, see Historical Note under § 26:2K-35.

**26:2K-37. Emergency medical transportation service; establishment; equipment; use**

The Division of State Police of the Department of Law and Public Safety shall establish an emergency medical transportation service to provide medical transportation service pursuant to this amendatory and supplementary act. The superintendent shall operate and maintain at least one dedicated helicopter for each emergency medical service helicopter response unit designated by the commissioner pursuant to section 2 of this amendatory and supplementary act.<sup>1</sup>

L.1986, c. 106, § 3.

<sup>1</sup> Section 26:2K-36.

**Historical Note**

Effective date, see Historical Note under § 26:2K-35.

**26:2K-38. Immunity from liability**

No mobile intensive care paramedic, licensed physician, hospital or its board of trustees, officers and members of the medical staff, nurses or other employees of the hospital, first aid, ambulance or rescue squad members or officers, is liable for any civil damages as the result of an act or the omission of an act committed while training for or in rendering advanced life support services in good faith and in accordance with this amendatory and supplementary act.

L.1986, c. 106, § 4.

## CHAPTER 40

### MANUAL OF STANDARDS FOR LICENSURE OF INVALID COACH AND AMBULANCE SERVICES

#### Authority

N.J.S.A. 26:2H-1 et seq. and N.J.S.A. 30:4D-6.2 et seq., specifically 30:4D-6.3 and 4

#### Source and Effective Date

R.1990 d.239, effective May 7, 1990  
See: 22 N.J.R. 595(a), 22 N.J.R. 1364(a).

#### Executive Order 66(1978) Expiration Date

Chapter 40, Manual of Standards for Licensure of Invalid Coach and Ambulance Services,  
expires on May 7, 1991.

#### Chapter Historical Note

Chapter 40 formerly contained rules concerning abortion. The chapter was originally filed and became effective August 5, 1974 as R.1974 d.215. See: 6 N.J.R. 345(c). A new rule was filed and became effective November 19, 1974 as R.1974 d.316. See: 6 N.J.R. 345(b), 6 N.J.R. 472(b). The subchapter was repealed effective June 6, 1983 by R.1983 d.202. See: 15 N.J.R. 308(a), 15 N.J.R. 922(a). Requirements for abortion facilities can be found in N.J.A.C. 8:43A. Chapter 40, Manual of Standards for Licensure of Invalid Coach and Ambulance Services, expired on April 15, 1990. The adoption was filed with the Office of Administrative Law on April 16, 1990. See: Source and Effective Date.

See subchapter and section levels for further amendments.

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8:40-1.1

## SUBCHAPTER 1. DEFINITIONS

## Executive Order 66(1978) Expiration Date

Pursuant to the requirements and criteria of Executive Order 66(1978), this subchapter expires on April 15, 1990.

## 8:40-1.1 Definitions

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise.

"Advertising" means any information directly or indirectly issued, distributed, hand-delivered or implied through any medium and used for the purpose of promoting the service of a licensee.

"Administrator" means an individual who may be entitled administrator, captain, chief, director or otherwise. The administrator may also, but need not, be the owner of the agency.

"Ambulance Service" means the provision of emergency or non-emergency medical care and transportation by certified trained personnel in a vehicle, including a helicopter, which is designed and equipped to provide medical care at the scene and while transporting sick and/or injured persons to or from a medical care facility or provider.

"AMD Standard" means the standard(s) promulgated by the Ambulance Manufacturers Division of the Truck Body and Equipment Association. Copies of the cited standard(s) may be purchased from that Association at Suite 1220, 5530 Wisconsin Avenue, Washington, D.C. 20015.

"A.N.S.I. Standard" means the standard(s) promulgated by the American National Standards Institute Inc. Copies of the cited standard(s) may be purchased from that Institute at 1430 Broadway, New York, NY 10018.

"Available" means ready for immediate use (pertaining to equipment); immediately accessible (pertaining to records).

"Cleaning" means the removal by scrubbing and washing, as with hot water, soap or detergent, and vacuuming, of infectious agents and/or organic matter from surfaces on which and in which infectious agents may find conditions for surviving or multiplying.

"Commissioner" means the New Jersey State Commissioner of Health.

"Communicable disease" means an illness due to a specific infectious agent or its toxic products, which occurs through transmission of that agent or its toxic products from a reservoir to a susceptible host.

"Department" means the New Jersey State Department of Health.

"Disinfection" means the killing of infectious agents outside the body, or organisms transmitting such agents, by chemical and physical means, directly applied.

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## INVALID COACH AND AMBULANCE SERVICES

"FAR" means the Federal Aviation Regulations.

"FCC" means the Federal Communications Commission.

"Federal Specification KKK-A-1822" means the specification and amendments thereto in force at the time of vehicle manufacture and entitled "Federal Specification, Ambulance, Emergency Medical Care Surface Vehicle KKK-A-1822" as published by the Federal Supply Service, of the U.S. General Services Administration. Single copies of the specification are available, at no charge, from EmHS, CN 363, Trenton, NJ 08625.

"FMVSS" means Federal Motor Vehicle Safety Standard(s) promulgated under 49 CFR 571. Consult Superintendent of Documents, Washington, D.C., for copies of the cited standards.

"Health care facility" means a facility so defined in the Health Care Facilities Planning Act, N.J.S.A. 26:2H-1 et seq.

"Helicopter Ambulance Service" means those services which provide aeromedical emergency care and transportation by rotowing aircraft and which are either provided to patients located in New Jersey by currently existing out-of-state providers or are provided by the New Jersey State Police.

"JEMS Communication Plan" means the State of New Jersey Emergency Medical Services Communication Plan published by the Department. Single copies of the plan are available, at no charge, from EmHS, CN 363, Trenton, NJ 08625.

"International symbol of access for the handicapped" means the outline form of a person in a wheelchair as illustrated in Appendix A.

"Invalid Coach Service" means the provision of non-emergency health care transportation, by certified trained personnel, for sick, infirm or otherwise disabled persons who are under the care and supervision of a physician and whose medical condition is not of sufficient magnitude or gravity to require transportation by ambulance, but does require transportation from place to place for medical care, and whose use of an alternate form of transportation, such as taxicab, bus, other public conveyance or private vehicle, might create a serious risk to life and health.

"Licensee" means any person, public or private institution, agency or business concern granted a license under this chapter by the Department.

"Patient" means any person utilizing services licensed under this chapter.

"Pneumatic Testing Manual" means the Pneumatic Testing Manual (for Pre-Hospital Respiratory Equipment) published by the Department. Single copies are available, at no charge, from EmHS, CN 363, Trenton, NJ 08625.

"Provide" means furnishing, conducting, maintaining, advertising, or in any way engaging in or professing to engage in a service licensable under this chapter.

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"Provider" means any person, public or private institution, agency or business concern which is providing Invalid Coach Service and/or Ambulance Service.

"Star of Life" means the symbol described in certification of registration number 1,058,022 which the United States Commissioner of Patents and Trademarks has issued to the National Highway Traffic Safety Administration. The Star of Life symbol is illustrated in Appendix B.

"SAE Standard" means the standard(s) promulgated by the Society of Automotive Engineers. Copies of the cited standard(s) may be purchased from that Society at 400 Commonwealth Drive, Warrendale, PA 15096.

"Valid" means current, up-to-date, in effect.

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8:40-2.1

## INVALID COACH AND AMBULANCE SERVICES

SUBCHAPTER 2. AUTHORITY AND LICENSURE  
PROCEDURES**Executive Order 66(1978) Expiration Date**

Pursuant to the requirements and criteria of Executive Order 66(1978), this subchapter expires on April 15, 1990.

**8:40-2.1 Authority**

(a) According to N.J.S.A. 30:4D-6.2 et seq., the Commissioner of Health is required to adopt rules, regulations and administrative orders which regulate the provision of Invalid Coach Service.

(b) According to N.J.S.A. 26:2H-1 et seq., the Commissioner of Health is authorized to adopt rules, regulations and administrative orders which regulate the provision of Invalid Coach and Ambulance Service.

**8:40-2.2 Application of regulations**

(a) Subchapters 1 through 4 of this chapter apply to Invalid Coach Services.

(b) Subchapters 1 through 3 and subchapter 5 of this chapter apply to Transport Ambulance Services.

(c) Subchapters 1 through 3 and subchapter 6 of this chapter apply to Emergency Ambulance Services.

(d) Subchapters 1 through 3 and subchapter 7 of this chapter apply to Helicopter Ambulance Services.

**8:40-2.3 Certificate of need required**

(a) According to Chapters 136 and 138, P.L. 1971 Health Care Facilities Planning Act, N.J.S.A. 26:2H-1 et seq., and amendments thereto, a health care facility shall not be instituted, constructed, expanded, or licensed to operate except upon application for and receipt of a Certificate of Need issued by the Commissioner.

(b) Application forms for a Certificate of Need and instructions for completion may be obtained from:

Review and Comment Program  
Division of Health Planning and Resources  
Development  
New Jersey State Department of Health  
CN 360  
Trenton, NJ 08625

**8:40-2.4 Licensing requirements**

(a) No person, public or private institution, agency or business concern shall provide Invalid Coach Service or Ambulance Service until the

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based on scenarios which can be reasonably expected to occur in the licensee's service area such as train/bus/aircraft accident, tornado or other weather induced accidents, fire or structural collapse or off-shore sinking.

(c) The plan shall describe the specific means as to how:

1. Off-duty personnel of the licensee would be summoned including specific telephone numbers and/or paging/tone alerting instructions;
2. Mutual aid ambulances would be summoned including specific telephone numbers and/or radio frequencies and encoding means.

(d) The plan shall specify when or whether the licensee's ambulance(s) and when or whether mutual aid ambulance(s) will be used to provide service to the unaffected portion of the licensee's service area. If mutual aid ambulances are to be used, the plan shall specify what means (guide, map, police escort, etc.) will be provided to enable the mutual aid ambulances to locate sites of any calls.

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8:40-7.1

## INVALID COACH AND AMBULANCE SERVICES

## SUBCHAPTER 7. SPECIFIC HELICOPTER AMBULANCE REQUIREMENTS

## Executive Order 66(1978) Expiration Date

Pursuant to the requirements and criteria of Executive Order 66(1978), this subchapter expires on April 15, 1990.

**8:40-7.1 Patient restrictions**

(a) Emergency medical care and transportation shall be provided to a patient who:

1. Requires, or may require, pre-hospital emergency medical services; or
2. Requires, or may require, emergency inter-hospital transfer.

**8:40-7.2 General helicopter requirements**

(a) When in service, the aircraft shall meet the requirements of this chapter.

(b) Each helicopter licensed under this chapter shall be licensed and operated in accordance with Federal Aviation Regulations (FAR) Part 135.

(c) The helicopter shall be in safe operating condition. All required equipment shall be functional and operable when the helicopter is in service.

(d) Each helicopter used by the licensee to provide helicopter air ambulance service shall have and display a valid Helicopter Ambulance License, issued by the Department.

**8:40-7.3 Patient compartment requirements**

(a) The helicopter shall have a patient compartment. If the patient compartment is not separated from the pilot's seating area, the pilot shall be protected, by a partition, bulkhead, or similar device, from the movements of the patient.

(b) The patient compartment shall have at least two exterior doorways.

1. At least one doorway shall be large enough to allow the loading/unloading of an occupied stretcher without rotating it more than:
  - i. 30 degrees about the longitudinal (roll) axis; and
  - ii. 45 degrees about the lateral (pitch) axis.
2. The other doorway shall be large enough to permit the entrance/exit of an ambulatory person.
3. The door(s) to each doorway shall be capable of being opened and being used from inside the patient compartment and from the exterior

## 8:40-7.7

of the aircraft. The exterior of each doorway shall be marked with a sign which states how the door can be opened.

(c) The patient compartment shall be provided with a built-in lighting system supplied by the aircraft power supply. The lighting system shall not interfere with the pilot's vision and shall be located so no glare is reflected into the pilot's eyes or lines of vision.

(d) There shall be space and seating for an attendant within the patient compartment. The seat shall be equipped with a safety belt.

(e) There shall be sufficient crashworthy cabinets and other storage spaces to safely accommodate all equipment and supplies.

**8:40-7.4 Patient compartment dimensions**

(a) The patient compartment shall have the following interior dimensions:

1. Height: at least 30 inches (40 inches preferable) between the top of the required litter and the ceiling.

2. Width: at least 24 inches from the inboard side of the required litter to the other side of the aircraft.

3. Length: at least long enough to accommodate the required litter.

**8:40-7.5 Certification to manufacturer/FAA standards**

The aircraft shall be certified to the aircraft manufacturer's standards and to FAA standards.

**8:40-7.6 Special lighting required**

Each helicopter used to provide pre-hospital emergency medical services (that is, "street work" or "on-scene care") shall be equipped with an exterior high-powered floodlight ("Sun Light"—tm—or equivalent) remotely controlled by the pilot.

**8:40-7.7 General equipment and supplies requirement**

(a) Each helicopter used to provide prehospital emergency medical services (that is, "street work" or "on-scene care") shall be equipped with all the equipment and supplies required in this chapter at the start of each mission.

(b) Each helicopter used to provide interhospital patient transfer service shall be equipped with all the equipment and supplies required in this chapter at the start of each transfer.

(c) All equipment and supplies shall be stowed within the aircraft in a safe, crashworthy manner. The stowage location shall be dictated by the relative importance of the material. A succinct list of contents shall appear on the door of any interior stowage compartment.

8:40-7.8

## INVALID COACH AND AMBULANCE SERVICES

**8:40-7.8 Standard patient transport devices**

(a) There shall be a litter for the transport of stretcher bound patients. The litter shall be at least 72 inches long (when flat) and at least 20 inches wide. The litter shall have a mattress at least one inch thick. The litter shall be adjustable from a flat to a semi-sitting position. There shall be a pillow, pillow case and sheet on the litter.

(b) The litter shall have three sets of two-inch wide patient restraints with quick release buckles positioned at the chest, waist and knees. The quick release buckles may be of the "slide-through" or "metal to metal" type.

(c) While the aircraft is in motion, the litter shall be restrained by a litter fastener. The litter fastener shall be securely fastened to the aircraft, shall be installed under a FAA Supplemental Type Certificate and shall meet the same "g" requirements as those contained in FAR Part 23.561 or FAR Part 25.561 for seats.

**8:40-7.9 Oxygen administration devices**

(a) The aircraft shall have an oxygen system capable of safely storing and supplying a minimum of 600 liters of medical oxygen. Aviation oxygen is not acceptable. For flights longer than twenty minutes, additional oxygen supplies shall be carried to permit administration of oxygen to the patient at a rate of at least 15 liters per minute during the entire period the patient is aboard the aircraft.

(b) The oxygen cylinder controls shall be accessible from the required attendant's seat. Cylinder opening wrench(es) or handles shall be affixed to or chained and clipped with the oxygen cylinder(s).

(c) When the aircraft is in motion, each oxygen cylinder shall be secured in a safe, crashworthy manner in oxygen tank holders affixed to the aircraft frame which meet the same "g" requirements as those contained in FAR Part 23.561 or FAR Part 25.561 for seats.

(d) Each oxygen system shall comply with the requirements of N.J.A.C. 8:40-6.13(c) through (g).

**8:40-7.10 Resuscitation devices**

(a) The required oxygen system shall be equipped with a positive pressure oxygen powered resuscitator.

(b) The aircraft shall be equipped with resuscitation devices in accordance with N.J.A.C. 8:40-6.14(c) through (g).

**8:40-7.11 Aspirator/suction devices**

(a) There shall be an installed suction device powered by the aircraft's electrical system. The device shall be securely mounted and located to



8:40-7.15

permit aspiration of any stretcher bound patient. The device shall meet the criteria contained in N.J.A.C. 8:40-6.15(c) through (e) during the entire normal range of aircraft operation.

(b) There shall be a portable suction device powered by an integral battery. The device shall meet the criteria contained in N.J.A.C. 8:40-6.15(c) through (e) for at least 20 minutes. In recognition of aircraft weight limitations, the portable suction device may also be used as the installed device provided it meets the requirements of (a) above.

#### **8:40-7.12 Airway maintenance supplies**

(a) There shall be at least:

1. Two mouth gags (bite sticks) single-service type;
2. Oropharyngeal Airways which meet A.N.S.I. Standard Z 79.3 (Oropharyngeal and Nasopharyngeal Airways), single-service type. There shall be two of each of the following (in A.N.S.I. Z 79.3 sizes):
  - i. 11 cm size (large adult);
  - ii. 9 cm size (medium adult);
  - iii. 7 cm size (child);
  - iv. 5.5 cm size (infant).

#### **8:40-7.13 External cardiac compression support**

A short spine board or a specially designed rigid board (such as a "CPR Board" (R)) shall be immediately available within the patient compartment.

#### **8:40-7.14 Spine boards, orthopedic litter and splints**

(a) The equipment required in N.J.A.C. 8:40-6.18 shall be available when Helicopter Ambulance Service is being provided at the scene of an accident. In recognition of the aircraft weight limitations, the equipment may be carried to the accident scene either by the aircraft or by a cooperating ground ambulance or Mobile Intensive Care Unit.

(b) In recognition of the airborne environment, splints or similar devices which rely on inflation or vacuum to provide stabilization of possible fractures are specifically prohibited.

#### **8:40-7.15 Wound dressing and burn treatment supplies**

(a) The following wound dressing and burn treatment supplies shall be carried in the aircraft:

1. Four conforming roller bandages, four or six inches wide by five yards long.
2. Four triangular bandages (cravat) measuring 36 inches by 36 inches by 51 inches when unfolded.

3. Four sterile, individually packed universal dressings measuring at least nine inches by 30 inches when unfolded.
4. Twenty-four sterile, individually packed gauze pads at least four inches by four inches.
5. One roll of three-inch wide adhesive type tape.
6. Two sterile, individually packed occlusive dressings (such as Vaseline (R) impregnated dressings).
7. Two sterile, individually wrapped burn sheets.
8. One liter sterile saline solution in a plastic container(s) (for flushing injury sites).

**8:40-7.16 Obstetrical kit**

An obstetrical kit shall be carried in the aircraft when a patient, known to be pregnant, is being transported. The obstetrical kit shall meet the requirements of N.J.A.C. 8:40-6.20.

**8:40-7.17 Other patient care equipment**

(a) There shall be the following other minimum patient care equipment.

1. Doppler type stethoscope. The stethoscope shall not cause electromagnetic interference to aircraft equipment;
2. Aneroid type blood pressure manometer and cuff;
3. Four sugar packets or one fluid ounce of glucose in a form easily ingested by mouth;
4. Two cloth blankets at least 60 inches by 80 inches in size.

(b) The licensee shall provide such other equipment and supplies as may be necessary, provided no equipment or supplies shall be carried which would permit rendering of care contrary to N.J.S.A. 45:9-1 et seq. (Practice of Medicine and Surgery Act).

**8:40-7.18 Required staff**

(a) When in service, each Helicopter Ambulance shall be staffed by at least two persons, one of whom may be the pilot, who shall meet the requirements of N.J.A.C. 8:40-3.7 and of this subchapter. All additional staff persons of the licensee shall meet the requirements of N.J.A.C. 8:40-3.7.

(b) The pilot shall:

1. Hold a current Rotocraft Helicopter Commercial License with a current F.A.A. Class II Medical Certificate.
2. Have at least 2,000 hours experience as pilot in command; 1,500 of which must be in rotowing aircraft.

NOTE: Sections 7.18, 7.19, 7.20 and 7.21 do not apply to this service.

8:40-7.22

**8:40-7.19 Required training of staff**

(a) Except as permitted in (b) below and in N.J.A.C. 8:40-7.21, each of the required staff persons shall possess current valid certification as an Emergency Medical Technician-Ambulance issued by the Department.

(b) In recognition of the need for staff to be trained, the second required person need not possess the required Emergency Medical Technician-Ambulance certification for six full months after the operative date of this chapter (that is, until October 31, 1985) provided the person certified as an Emergency Medical Technician-Ambulance is in charge of patient care and accompanies patients being transported in the patient compartment.

**8:40-7.20 Duties of staff**

(a) The collective duties of the persons who staff a helicopter ambulance shall include, but are not limited to:

1. The duties cited in N.J.A.C. 8:40-6.27 (excluding 8:40-6.27(a)6).
2. Assuring that all ground personnel who may help load/unload the aircraft observe appropriate safety procedures.
3. Prohibiting smoking within 100 feet of the aircraft when refueling is being done with a patient aboard the aircraft.

**8:40-7.21 Special staff required**

(a) When the Helicopter Ambulance is used to provide an inter-hospital transfer of a neonatal patient, the aircraft shall be staffed by:

1. The pilot; and
2. A physician or a nurse who has been specially trained to care for neonatal patients.

(b) When the Helicopter Ambulance is utilized to transport a patient receiving intravenous fluids and/or medications, the aircraft shall be staffed by:

1. The pilot; and
2. A physician or a registered nurse; or
3. A licensed Mobile Intensive Care Paramedic providing medical care as part of a designated Mobile Intensive Care Program operated in accordance with N.J.S.A. 26:2K-2.

**8:40-7.22 Call report**

(a) A call report shall be completed each time a patient is transported. The call report shall be prepared by the medical staff who provided in-flight patient care and shall contain the information required in N.J.A.C. 8:40-6.29 printed in ink.

(b) A copy of the call report shall be given to the appropriate person at the medical facility which receives the patient.

8:40-7.23

## INVALID COACH AND AMBULANCE SERVICES

**8:40-7.23 Radio communications**

(a) All radio communications shall comply with rules and regulations of the Federal Communications Commission and shall comply with the JEMS Communications Plan. The Department shall be provided with a copy of any FCC license(s) issued to the licensee.

(b) Each Helicopter Ambulance shall be equipped with communications equipment, approved by the Office of Emergency Health Services of the New Jersey State Department of Health, to permit direct contact with:

1. Participating hospitals; and
2. Mobile Intensive Care Units; and
3. (Ground) Emergency Ambulances.

(c) In recognition of the potential for harmful radio interference due to aircraft height, no radio equipment, which operates on the UHF radio frequencies known as "Med 1" through "Med 10", shall be used aboard the aircraft without the specific approval of the Office of Emergency Health Services of the New Jersey State Department of Health.

**8:40-7.24 Written agreements required**

(a) Licensees which provide pre-hospital emergency medical services (that is, "street-work" or "on-scene care") shall have a written agreement to provide Helicopter Ambulance Service with:

1. The "receiving hospital(s)" which routinely provide hospital care to the patients transported by the licensee; and
2. The designated Mobile Intensive Care Program operated in accordance with N.J.S.A. 26:2K-2 which provides service to the geographic area; or

3. If there is no designated Mobile Intensive Care Program, the Ambulance Service which provides service to the geographic area.

(b) Licensees which provide inter-hospital patient transfers shall have a written agreement to provide Helicopter Ambulance Service with:

1. The "sending hospital(s)" which routinely utilize the licensee's services to transport patients; and
2. The "receiving hospital(s)" which routinely provide hospital care to the patients transported by the licensee.

**8:40-7.25 Special prohibitions**

(a) In recognition of the potential hazards of the aircraft environment, the following are specifically prohibited:

1. Conducting a flight contrary to the recommendations of the aircraft pilot or the responsible FAA controller;
2. Refueling an aircraft with a patient aboard the aircraft unless prompt refueling is necessary to sustain human life;

8:40-7.25

3. Free swinging traction weights or intravenous containers;
  4. Glass or rigid plastic intravenous containers;
  5. Any patient care or other equipment which causes electromagnetic interference to the aircraft equipment;
  6. Transport of a patient with an indwelling, air filled, balloon type device.
-

## APPENDIX A    INVALID COACH AND AMBULANCE SERVICES

## APPENDIX A

(RESERVED)

## APPENDIX B

(RESERVED)

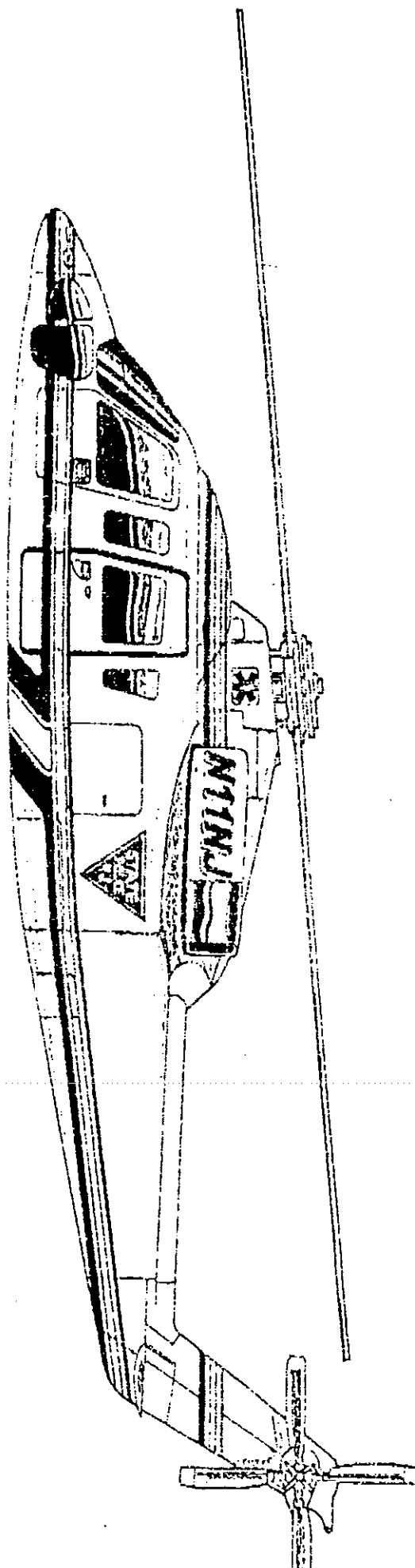
## APPENDIX C

Local EMS Radio Frequency Table

County (Where licensee provides service)	Required Radio Frequency	Required CTCSS (continuous tone coded squelch system)	Specific Area
Atlantic County	155.175 MHz.	118.8	County, except Atlantic City
	155.220 MHz.	118.8	Atlantic City
Bergen County	155.205 MHz.	•	Eastern portion
	155.175 MHz.	•	Western portion
Burlington County	155.295 MHz.	127.3	Countywide
Camden County	155.235 MHz.	192.8	Countywide
Cape May County	155.295 MHz.	118.8	Countywide
Cumberland County	155.220 MHz.	179.9	Countywide
Essex County	155.295 MHz.	•	County, except Newark City
	155.400 MHz.	•	Newark City
Gloucester County	155.265 MHz.	167.9	Countywide
Hudson County	155.235 MHz.	•	Countywide
Hunterdon County	155.205 MHz.	192.8	Countywide
Mercer County	155.265 MHz.	103.5	Countywide
Middlesex County	155.220 MHz.	103.5	Countywide
Monmouth County	155.175 MHz.	151.4	Countywide
Morris County	155.265 MHz.	241.8	Countywide
Ocean County	155.205 MHz.	186.2	Countywide
Passaic County	155.220 MHz.	•	Countywide
Salem County	155.295 MHz.	186.2	Countywide
Somerset County	155.235 MHz.	•	Countywide
Sussex County	155.295 MHz.	•	Countywide
Union County	155.175 MHz.	•	County, except Elizabeth City
	• MHz.	•	Elizabeth City
Warren County	155.265 MHz.	•	Countywide

\* As assigned by N.J. State Department of Health

NEW JERSEY STATE POLICE AVIATION BUREAU



# Sikorsky 76 Mark II

## Pratt & Whitney Engines



UNITED  
TECHNOLOGIES  
SIKORSKY  
AIRCRAFT

### Technical Information

No. 762-101-5

S-76B

PERFORMANCE, WEIGHTS, AND DIMENSIONS

### PERFORMANCE

#### ENGLISH

#### METRIC

(Standard day at 11,700 lbs gross weight except where indicated)

Maximum Speed, Sea Level	155 kts.	287 km./hr.
Recommended Cruise Speed	145 kts.	266 km./hr.
Best Rate of Climb, Sea Level	1,550 ft./min.	8.38 m./sec.
Hover Ceiling In-Ground Effect (T.O.P.)	3,000 ft.	2,438 m.
Hover Ceiling Out-of-Ground Effect (T.O.P.)	3,750 ft.	3,153 m.
Twin Engine Service Ceiling	13,000* ft.	4,572 m.
Single Engine Service Ceiling (30 Min. Power)	6,500 ft.	2,981 m.
Range at Long Range Cruise Speeds (137 knots), 3000 ft.		
With 30 min. reserve	238 nm.	438 km.
With no reserve	357 nm.	661 km.
Fuel Consumption at 135 kts. at 3,000 ft.	730 lbs./hr.	331 kg./hr.

### WEIGHTS

Maximum Take-Off Gross Weight	11,700 lbs.	5,306 kg.
Weight Empty (Standard Equipment)	5,641 lbs.	2,557 kg.
Useful Load	5,059 lbs.	2,294 kg.

### DIMENSIONS

Fuselage Length	44' 8"	13.42 m.
Fuselage Width	7' 0"	2.13 m.
Fuselage Height (to top of tail pylon)	11' 9"	3.63 m.
Length Over-all (including rotors)	32' 6"	10.00 m.
Height Over-all (to tip of tail rotor)	14' 6"	4.42 m.
Width (including horizontal stabilizer)	10' 0"	3.05 m.
Main Rotor Diameter (blade tip circle)	44' 0"	13.41 m.
Tail Rotor Diameter (blade tip circle)	8' 0"	2.44 m.
Main Landing Gear Tread	8' 0"	2.44 m.
Wheel Base	15' 5"	5.00 m.
Passenger Cabin Length	8' 1"	2.46 m.
Passenger Cabin Width	5' 4"	1.93 m.
Passenger Cabin Height	4' 3"	1.35 m.

\* Maximum Operating Altitude

\*\* Speed for 99% best specific range



# Mid-Year Report

by Howard M. Collett

In its maturing years, the air medical industry continues to grow in both the number of programs and helicopters. Table 1 shows that the number of hospital-sponsored helicopter programs in the U.S. grew by nine during the last 12 months—from 165 as of July 1, 1989 to 174 as of July 1, 1990—an increase of 5.5 percent.

The number of patients transported grew a little faster, from 111,000 for the 12 months preceding July 1, 1989, to an estimated 119,000 in the 12 months prior to July 1, 1990, for a 6.9 percent increase.

The number of helicopters grew even faster—from 213 to 231—for an 8.5 percent increase. The growth was fueled not only by new program starts, but by the increase in size of existing fleets. The number of twin-engine helicopters accounted for almost all of the growth, up 17 from mid-1989. The single engine fleet saw the growth of only one.

Responses to our annual surveys are most complete from exclusive-use patient transport programs. Virtually all hospital-sponsored services are exclusive use; hence our exclusion of non-hospital services in our data.

During 18 years of hospital-sponsored helicopters, an estimated 733,000 patients have been transported 85 million air miles. Non-hospital services have added an additional 113,000 patients and 13 million air miles. With a conservative mortality reduction of even 10 percent, some 84,000 patients owe their lives to helicopters.

Significant events during the past 12 months included two mergers of large helicopter companies. Omniflight Helicopters, Inc. (Charleston, SC) acquired SilverStar Aviation (Addison, TX). The move boosted Omniflight to 40 programs nationwide—just shy of first place Rocky Mountain Helicopters (Provo, UT), which leads the industry with 43 programs.

Table 1  
HOSPITAL-BASED HELICOPTERS

July 1, 1990

	July 1985	July 1986	July 1987	July 1988	July 1989	July 1990
General Programs	101	129	145	155	165	174
Cities	85	111	125	131	136	137
Helicopters	119	151	184	195	213	231
Operators	34	37	31	33	32	27
Patients (000)	60	78	93	104	111	119
<b>Helicopters - single turbine</b>						
LongRanger	31	36	42	45	42	43
AStar	17	25	23	25	19	22
Alouette	9	10	11	8	6	5
JetRanger	5	5	3	0	2	0
Other	2	2	0	0	0	0
Subtotal	64	78	79	78	69	70
<b>Helicopters - twin turbine</b>						
BK-117	7	16	31	44	55	59
BO-105	17	16	21	25	34	36
TwinStar	16	17	17	13	13	12
Dauphin 365	1	3	9	12	15	14
Bell 222	8	13	14	9	9	11
Agusta 109	6	7	9	9	7	8
Sikorsky S76	0	0	3	5	7	12
Bell 212/412	0	0	0	3	4	9
Sikorsky 58T	0	1	1	1	0	0
Subtotal	55	73	105	121	144	161
% Twins	46%	48%	57%	61%	68%	70%
<b>Manufacturer</b>						
W German	20%	21%	28%	35%	42%	41%
American	38%	37%	34%	31%	30%	32%
French	37%	37%	33%	29%	25%	23%
Italian	5%	5%	5%	5%	3%	3%
<b>Operator contracts</b>						
Rocky Mountain	21	31	35	38	42	43
Omniflight	15	15	18	21	22	40
Air Methods	5	7	8	9	9	12
Corporate Jets	unk	unk	unk	unk	unk	11
Petroleum	2	2	4	8	9	9
St. Louis	4	4	5	5	6	6
Metro Aviation	2	4	4	5	6	6
Keystone	1	2	3	4	5	5
Indianapolis Heliport	unk	unk	unk	unk	unk	4
Hospital AirTransport	3	2	4	3	4	3
SilverStar	4	8	10	16	15	(A)
US Jet	2	5	6	7	10	(B)
Other*	22	25	19	23	22	18
Hospital**	8	11	17	13	14	16
<b>Services</b>						
Shared	18%	16%	17%	15%	14%	unk
Competing	31%	42%	40%	46%	49%	unk

\*Ranked according to 1990 data

\*\*Operators with two or less contracts

\*\*\*Hospitals with own flight department

(A) Merged with Omniflight

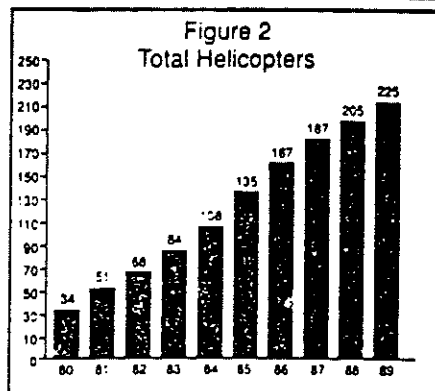
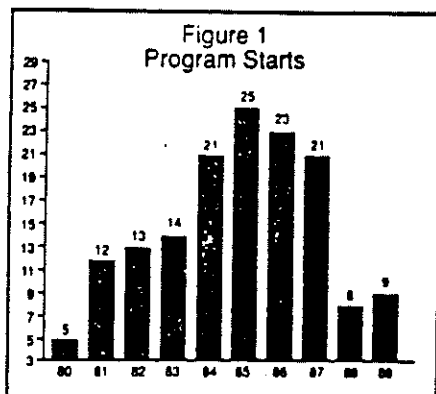
(B) Merged with Corporate Jets

The second merger found Corporate Jets, Inc. (Pittsburgh, PA) acquiring US Jet Aviation (Washington, DC). The resulting 11 programs moved Corporate Jets into fourth place among air medical operator size.

The two mergers allowed fifth-place Air Methods (Englewood, CO) to move into third place. Air Methods may have gotten there on its own, however, growing from 9 to 12 programs in the last 12 months.

No program closures were reported during the last 12 months. Over the last five years, the industry has averaged 1.6 program closures per year. The latest closures were one program in April 1988 and another in May 1989. The latter program is scheduled to reopen later this summer.

Table 1 shows the most recent 12-month statistical period compared with previous years. Figure 1 presents a



graph of program starts over the past ten years. Figure 2 shows the total number of helicopters (excluding backup ships) regularly employed in the hospital fleet.

Twin-engine helicopters dominated the growth, with 80 percent of all new services, and 100 percent of reported helicopter upgrades and fleet additions. Leading the list were Sikorsky S-76's and

Bell 412's, each with five additions to the air medical fleet. The growth of these models was the main factor in the rise of market share (30 percent to 33 percent) of U.S.-manufactured models. It's the first increase in the air medical market share for U.S. helicopter manufacturers since 1985.

Other models that saw growth over the 12-month period were Aerospatiale's

AStar 350, Bell's 206 LongRanger and Model 222, and Agusta's 109. All other models declined.

Larger twins with a gross weight of 8,000 pounds or more (Bell 222, Aerospatiale 365N, Sikorsky S-76, Bell 212/412) account for 20 percent of the hospital-based helicopter fleet, compared to 16 percent last summer and only 5 percent six years ago. □

# AAMS 1990

ASSOCIATION OF AIR MEDICAL SERVICES  
11<sup>TH</sup> ♦ ANNUAL ♦ CONFERENCE

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TENNESSEE

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AAMS 1990  
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**BK 117 Programs** (continued)

NO. OF AIRCRAFT	PROGRAM NAME	MEDICAL FACILITY(S)/CORPORATION(S)	CITY/STATE
2	ARCH	Barnes Hospital St. John's Mercy Medical Center St. Louis University Hospital	St. Louis, MO
1	HEALTHNET AEROMEDICAL SERVICES	St. Joseph Hospital	Lexington, KY

65 Total BK 117s

50 Total BK 117 Programs

**BO 105 Programs**

NO. OF AIRCRAFT	PROGRAM NAME	MEDICAL FACILITY(S)/CORPORATION(S)	CITY/STATE
1	FLIGHT FOR LIFE	Valley Hospital Medical Center	Las Vegas, NV
1	LIFE FLIGHT	Emanuel Hospital & Health Center	Portland, OR
3	AIR MED SERVICES, INC.	Acadian Ambulance Service, Inc.	Lafayette, LA
1	NIGHTINGALE	Sentara Enterprises	Norfolk, VA
4	LIFE FLIGHT SAN DIEGO	UCSD Medical Center Children's Hospital & Health Center Mercy Hospital and Medical Center Scripps Memorial Hospitals Sharp Memorial Hospital Palomar Medical Center Tri-City Medical Center	San Diego, CA
1	HAMMONS LIFE LINE	St. John's Regional Health Center	Springfield, MO
1	TALLAHASSEE LIFE FLIGHT	Tallahassee Memorial Regional Medical Center	Tallahassee, FL
1	AIR CARE TEAM	Orlando Regional Medical Center	Orlando, FL
1	LIFE FLIGHT	Baptist Hospital	Pensacola, FL
1	MEDFLIGHT	St. Joseph Hospital	Bellingham, WA
1	AIRSTAT	Mississippi Baptist Medical Center	Jackson, MS
1	MAMA	Memorial Mission Hospital	Asheville, NC
1	AIR I	East Texas Emergency Medical Services Medical Center Hospital	Tyler, TX
1	CAREFLITE FORT WORTH	Harris Methodist Fort Worth	Ft. Worth, TX
1	STAT	Center for Emergency Medicine of Western PA Children's Hospital of Pittsburgh Mercy Hospital of Pittsburgh Montefiore Hospital Presbyterian-University Hospital St. Francis Health Center	Pittsburgh, PA
1	FLIGHTCARE	St. Mary's Medical Center	Saginaw, MI
1	LIFEFLIGHT	Humana Hospital - Montgomery	Montgomery, AL
1	STAT FLIGHT	Alachua General Hospital, Inc.	Gainesville, FL
1	LIFE LINE	Methodist Hospital of Indiana, Inc.	Indianapolis, IN
1	UNIVERSITY AIR CARE	University of Cincinnati Hospital	Cincinnati, OH
1	BANNOCK LIFE FLIGHT	Bannock Regional Medical Center	Pocatello, ID
1	SKY FLIGHTCARE	Brandywine Hospital & Trauma Center Thomas Jefferson University Hospital	Caln Township, PA
1	ANGEL FLIGHT	Arkansas Children's Hospital	Little Rock, AR
1	EASTCARE	Pitt County Memorial Hospital	Greenville, NC
1	EXTENSIVE AIR	Sioux Valley Hospital	Sioux Falls, SD
1	MED-LINK	St. Elizabeth Hospital	Beaumont, TX
1	LIFEGUARD ALASKA	Providence Hospital	Anchorage, AK
1	COX AIR CARE	Cox Medical Center	Springfield, MO
1	MEMORIAL MEDSTAR	Conemaugh Valley Memorial Hospital	Johnstown, PA
1	LIFE FLIGHT	Baptist Medical Center	Jacksonville, FL
1	HERMANN LIFE FLIGHT	Hermann Hospital	Houston, TX
1	AIR RESCUE	Willis-Knighton Medical Center	Shreveport, LA
1	STAR	Tompkins Community Hospital Arnot-Ogden Memorial Hospital United Health Services	Ithaca, NY
1	LIFEBIRD	Deaconess Medical Center	Spokane, WA
1	CALSTAR	California Shock Trauma Air Rescue	Hayward, CA

40 Total BO 105s

35 Total BO 105 Programs

80 Total AIRP EMS Programs

# MBB HELICOPTER CORPORATION

## BK 117 Programs

APPENDIX D-4

NO. OF AIRCRAFT	PROGRAM NAME	MEDICAL FACILITY(S)/CORPORATION(S)	CITY/STATE
2	MEDSTAR	Washington Hospital Center	Washington, DC
2	LIFE FLIGHT	Geisinger Medical Center	Danville, PA
1	MAYO ONE	Mayo Medical Center	Rochester, MN
2	LIFEFLIGHT	Grant Medical Center	Columbus, OH
2	LIFE STAR	Hartford Hospital	Hartford, CT
1	TRAUMAONE FLIGHT SERVICES	University Medical Center	Jacksonville, FL
1	BOSTON MED FLIGHT	University Hospital at Boston University Medical Center	Boston, MA
		The New England Medical Center Hospitals	
		Massachusetts General Hospital	
		Brigham & Women's Hospital	
1	LIFE STAR	Emergency Care Inc.	Erie, PA
2	STAT	Center for Emergency Medicine of Western PA	Pittsburgh, PA
		Children's Hospital of Pittsburgh	
		Mercy Hospital of Pittsburgh	
		Montefiore Hospital	
		Presbyterian-University Hospital	
1	UNIVERSITY AIRCARE	St. Francis Health Center	
2	UNIVERSITY MEDEVAC	University Hospitals of Cleveland	Cleveland, OH
		Hahnemann University Hospital	Philadelphia, PA
		Lehigh Valley Hospital Center	
1	CAROLINA AIR CARE	UNC Hospitals	Chapel Hill, NC
1	FLIGHT FOR LIFE	Milwaukee Regional Medical Center	Milwaukee, WI
1	LIFE FLIGHT	Stanford University	Stanford, CA
4	SAMARITAN AIREVAC	Samaritan Health Services	Phoenix, AZ
1	BAPTIST MED FLIGHT	East Tennessee Baptist Hospital	Knorrville, TN
1	VANDERBILT LIFEFLIGHT	Vanderbilt University Medical Center	Nashville, TN
3	LIFE FLIGHT	Allegheny General Hospital	Pittsburgh, PA
1	BAYFLITE	Bayfront Medical Center, Inc.	St. Petersburg, FL
2	TULSA LIFE FLIGHT	St. Francis Hospital	Tulsa, OK
1	LIFE LINE	Methodist Hospital of Indiana, Inc.	Indianapolis, IN
1	NEW ENGLAND LIFE FLIGHT	University of Massachusetts Medical Center	Worcester, MA
1	UNIVERSITY AIR CARE	University of Cincinnati Hospital	Cincinnati, OH
1	LIFESTAR, INC.	Memorial Medical Center, Inc.	Savannah, GA
1	MEDUCARE	Medical University of South Carolina	Charleston, SC
1	HEALTHNET AEROMEDICAL SERVICES	Charleston Area Medical Center	Charleston, WV
1	HEALTHNET AEROMEDICAL SERVICES	West Virginia University Hospitals	Morgantown, WV
2	PENNSTAR	University of Pennsylvania Medical Center	Philadelphia, PA
1	HERMANN LIFE FLIGHT	Hermann Hospital	Houston, TX
1	UTMB LIFE FLIGHT	University of Texas Medical Branch	Galveston, TX
2	LIFEFLIGHT SOUTHERN CALIFORNIA	Long Beach Memorial Medical Center	Long Beach, CA
1	LIFE AIR I	Schumpert Medical Center	Shreveport, LA
1	NYH CORNELL AEROMED	The New York Hospital Cornell University Medical Center	New York, NY
1	LIFE FLIGHT	AMJ Saint Joseph Hospital	Omaha, NE
1	R.E.A.C.T.	Rockford Memorial Hospital	Rockford, IL
		Swedish-American Hospital	
1	LIFE FLIGHT	Emanuel Hospital & Health Center	Portland, OR
1	SKYMED	University of Nebraska Medical Center	Omaha, NE
		Bishop Clarkson Memorial Hospital	
		Immanuel Medical Center	
		Children's Memorial Hospital	
		Methodist Hospital	
1	LOYOLA LIFESTAR	Loyola University Medical Center	Maywood, IL
1	THE STAFF FOR LIFE HELICOPTER SERVICE	University Hospital & Clinics	Columbia, MO
1	MARIAN AIR CARE	Marian Health Center	Sioux City, IA
1	FLIGHT FOR LIFE	Mother Frances Hospital	Tyler, TX
1	AEROMED I	The Tampa General Hospital	Tampa, FL
1	FLORIDA FLIGHT I	Florida Hospital Medical Center	Orlando, FL
1	STAT FLIGHT HUMANA HOSPITAL U OF L	University of Louisville Hospital	Louisville, KY
1	GUTHRIE ONE	Robert Packer Hospital Guthrie Medical Center	Sayre, PA
1	UMC AIR CARE	University Medical Center	Tucson, AZ
1	ST. MARY'S LIFE FLIGHT	St. Mary's Medical Center	Duluth, MN
1	AEROCARE	Goldstar Services, Inc.	Lubbock, TX

(continued)

A GRANT BETWEEN  
STATE OF NEW JERSEY  
DEPARTMENT OF HEALTH  
and

\_\_\_\_\_  
(Grantee)

Grant Number \_\_\_\_\_

PROGRAM SPECIFICATIONS

The following program and administrative specifications are required by the Grantee as a condition of this award.

1. Provide the following services 7-days-a-week, 16-hours-a-day from July 1, 1990 through June 30, 1991.
  - a. Sufficient AOMs, trained to the appropriate level and certified by the Department of Health to provide complete rotations of medical staff per operational day.
  - b. Staffing for individual flights of the aeromedical service consisting of a minimum of one Flight Paramedic and one Flight Nurse per flight.
  - c. Coordination of each flight with applicable sending and/or receiving hospitals in the designated coverage area.
  - d. Consultation with appropriate specialty care physicians, when the patient's condition indicates.
  - e. Coordination of mechanisms to request and dispatch aeromedical services, following approved Department of Health SOP's and to cross patch and consult with critical care facilities, hospitals, State Police, Department of Health, county communications agencies and other concerned public service entities.
  - f. Maintenance of applicable medical equipment so it may be immediately used.
  - g. Support for equipment needed by respective dispatch centers related to aeromedical dispatch and approved by the Department of Health and State Police.
  - h. Appropriately trained communications technicians to staff and maintain communications centers, including uninterrupted flight-following during entire aeromedical missions.
  - i. Appropriate equipment and supplies as per Department of Health standards meet medical and operational protocols.
  - j. Onsite and interhospital advanced life support care to the critically ill and injured patient, as established by the Department of Health.

## ATTACHMENT C

Page 2 of 4

2. Provide and maintain a written contingency plan which details the implementation of 24 hours-per day operation.
3. Meet applicable criteria of the legislative mandates under P.L. 1986, Chapter 106, which authorized the "New Jersey Emergency Medical Service Helicopter Response Program".
4. Adhere to Department of Health and New Jersey State Police SOP for dispatching the helicopter's medical crew with the understanding that the pilot in command is responsible for a go/no go decision.
5. Operate in accordance with the Department of Health dispatch protocols, operational policies, and treatment, triage and transfer protocols (e.g., cardiac, trauma, neonatal, burns).  
  
Assure that medical control of trauma patients identified in accordance with American College of Surgeons triage guidelines, is transmitted directly from the Level I Trauma Centers.
6. Work with Department of Health in cooperative planning efforts to interface the aeromedical service with the existing basic life support, advanced life support, hospital and specialty services in the region for optimum patient care. Refrain from developing independent agreements with either instate or out-of-state entities.
7. Work with the Department of Health to develop educational and informational materials about the aeromedical program in general; refrain from developing local educational/informational materials independently.
8. Work with the Department of Health in providing educational presentations concerning appropriate and safe use of the helicopter unless called out for a patient care flight. Refrain from independent educational programs/demonstrations of the service to prehospital providers, first responders, hospitals and others and coordinate requests for public presentations through the Department of Health.
9. Participate in efforts of the New Jersey State Police and the Department of Health to share information about the statewide aeromedical service through national or state news releases, professional appearances and other means; refrain from independent actions in these areas.
10. Submit to the Department of Health, organizational charts of the program's clinical and administrative staff and designated liaison persons with the Department of Health and other critical facilities such as Trauma Centers. The Department of Health shall be notified of any changes in program organization and staff.

The following are minimal credentials for positions applicable for funding through this grant:

- a. Aeromedical Project Coordinator - Five years experience in Emergency Medical Services with at least three years in a supervisory or management capacity. MICP or RN, certified,

licensed or eligible in New Jersey. Bachelor degree in a related field.

- b. Chief Aeromedical Crew Member (Flight Nurse) - RN licensed or eligible in New Jersey. Current ACLS and Basic Life Support CPR. BSN or currently matriculating. Five years critical care experience in SICU, TICU, Emergency Department or MICN with two years as a clinical supervisor or instructional capacity. Department of Health certified Flight Nurse.
  - c. Chief Aeromedical Crew Member (Flight Paramedic) - New Jersey certified MICP. Current ACLS and Basic Life Support CPR. Five years prehospital experience with two years as a clinical supervisor. Department of Health certified Flight paramedic.
  - d. Flight Nurse - RN licensed or eligible in New Jersey. Current ACLS and Basic Life Support CPR. Three years critical care experience in SICU, TICU, Emergency Department of MICN. Department of Health certified Flight Nurse.
  - e. Flight Paramedic - New Jersey certified MICP. Current ACLS and Basic Life Support CPR. Three years prehospital experience as a MICP. Department of Health certified Flight Paramedic.
- 11. Submit to the Department of Health for review and approval, standard operating procedures, personnel guidelines and other applicable program guidelines and standards a minimum of one month prior to planned implementation of any new policies or guidelines proposed during the grant period.
  - 12. Submit to the Department of Health, for review and approval, the training program and continuing education program for the helicopter's medical staff.
  - 13. Cooperate with the work of the New Jersey State Police regarding the aviation component of the program's operation.
  - 14. Cooperate with the New Jersey State Police and the Department of Health efforts to gather information concerning landing sites, both hospital-based and onscene in the region.
  - 15. Cooperate with the Department of Health and the New Jersey State Police during times of mass casualty incidents, radiation emergencies or natural or manmade disasters in order to use the aeromedical service to its best advantage.
  - 16. Make available all information requested to evaluate services provided, including those of program audit and onsite inspection, and those related to licensing/relicensing the services.
  - 17. Assure the Department of Health that a system of on-going quality assurance for aeromedical crew performance and medical command and triage is in place. Provide procedures for such to the Department of Health. Participate in statewide quality assurance systems.

18. Participate in the evaluation of the quality of care delivered by the aeromedical service by:
  - a. Using physician expertise and crew input in a post-flight review of all calls.
  - b. Recording pertinent data on all flights, using a standard statewide patient run report form approved by the Department of Health, Office of Emergency Medical Services.
  - c. Submit individual patient run reports to OEMS by the 10th day of the succeeding month for review and audit.
  - d. Submit in the aggregated patient data monthly to the Office of Emergency Medical Services.
  - e. Participating in special studies, as requested.
  - f. On a monthly basis, attend quality assurance meetings conducted by personnel representing the State designated regional level one trauma center.
19. Participate in reeducation of those involved in a flight, should local or Office of Emergency Medical Services audits show that helicopter use was inappropriate or problems with aeromedical care arose.

Evaluation:

1. Submit to the New Jersey State Department of Health, Office of Emergency Medical Services a performance report within 10 days of the end of each calendar month. Each report shall include:
  - a. Narrative report (NJSDH Progress Report) detailing progress in meeting the objectives of this contract and explaining any major deviations from those objectives.
  - b. Statistical report containing data on calls/flights during the quarter, including aborted or "no go" flights, in a format acceptable to the Office of Emergency Medical Services.
  - c. A list of specific educational programs in which the program has participated, calls for information and their disposition, and information/materials distributed and to whom.
2. Provide an annual report of the program to the Department of Health within 60 days of the end of the first grant period.

Application Format:

See enclosed instructions and Application for Health Service Grant.



## O U T L I N E

## NEW JERSEY BASIC AEROMEDICAL TRAINING PROGRAM CURRICULUM

	HOURS
<u>EXTRACURRICULAR</u>	
American Heart Association Advanced Cardiac Life Support	- 16
American College of Surgeons Pre-Hospital Trauma Life Support	- 16
American College of Surgeons Advanced Trauma Life Support	- 16
 <u>AVIATION</u>	
AIRCRAFT ORIENTATION	- 8
1. FAA Regulations	
2. Pilot Roles and Responsibilities	
3. Helicopter Familiarization	
4. Operation of On-board Medical Equipment Systems	
AERODYNAMICS OF FLIGHT ENVIRONMENT	- 8
1. General Principles	
2. Altitude Physiology	
SAFETY	- 8
1. Landing Zone Preparation	
2. Weather Considerations	
3. Fire Safety Aboard and Around Aircraft	
4. Electrical Safety	
5. Scene Management	
COMMUNICATIONS	- 4
1. In-flight Communications	
2. Ground Communications	
SURVIVAL	- 4
1. Forced Landing / Collision	
2. Emergency Procedures in Flight	
3. Compass Reading	
4. Signaling Devices	
5. Shelter	
 <u>AEROMEDICAL</u>	
ADULT TRAUMA	- 24
1. Triage	
a. Scene Management	

- b. Mass Casualty / Disaster
  - c. Indexing Systems
  - d. Treatment of Entrapped Victim
- 2. Airway Management
  - a. Airways
  - b. Nasotracheal & Orotracheal Intubation
  - c. Needle Cricothyrotomy
- 3. Thoracic Trauma
  - a. Pneumothorax
  - b. Tension Pneumothorax
  - c. Open Pneumothorax
  - d. Flail Chest
  - e. Needle Chest Decompression
  - f. Tube Thoracostomy - care of
- 4. Cardiac Trauma
  - a. Tamponade
  - b. Contusion
- 5. Hypovolemic Shock
  - a. Catheter Placement; Intravenous, Intraosseous
  - b. Fluid Resuscitation
  - c. MAST/PASG
- 6. Neurologic Trauma
  - a. Head Injury
  - b. Spinal Cord Injury
  - c. C-spine Immobilization/Traction
- 7. Musculoskeletal Trauma
  - a. Immobilization
  - b. Splinting
  - c. Traction
- 8. Gastrointestinal Trauma
- 9. Genitourinary Trauma
- 10. Maxillofacial Trauma

## ADULT MEDICAL EMERGENCIES

- 24

- 1. Cardiovascular
- 2. Pulmonary
- 3. Neurological
- 4. Gastrointestinal
- 5. Genitourinary
- 6. Metabolic/ Endocrine/ Toxicology

## SPECIAL EMERGENCIES

- 24

- 1. Pediatric/OB/GYN Trauma
- 2. Burns
- 3. OB/GYN Emergencies
- 4. Pediatric Emergencies
- 5. Neonatal Brief

## STRESS AND FATIGUE

- 6

- 1. Predisposition

2. Scheduling/ Work & Rest Cycles
3. Discipline, Morale, Leadership
4. Self-imposed
5. Stress Reduction Techniques

QUALITY ASSURANCE - 4

1. Chart Audit
2. Peer Review
3. Performance Evaluation
4. Statistical Reporting
5. Incident Reporting

INFECTION CONTROL - 8

1. Center for Disease Control Isolation Guidelines
2. AIDS
3. Treatment of Contaminated Equipment
4. Hazardous Waste Disposal
5. Decontamination of Aircraft

CLINICAL ROTATIONS

MOBILE INTENSIVE CARE UNIT - 24

TRAUMA CENTER - 24

BURN UNIT - 8

NEUROSURGICAL INTENSIVE CARE UNIT - 8

EMERGENCY DEPARTMENT - 24

NEONATAL INTENSIVE CARE UNIT - 8

LABOR AND DELIVERY - 8

PEDIATRIC INTENSIVE CARE UNIT - 8

MEDICAL INTENSIVE CARE UNIT - 8

OPERATING ROOM - intubations - 16

CADAVER LAB - 4

1. Needle Cricothyroidotomy

2. Intraosseous Cannulation

DOG LAB - needle chest decompression - 2

KITTEN LAB - neonatal intubation - 2

MEDICOLEGAL ISSUES - 6

1. Aeromedical Crew Member Certification Process

2. Death Pronouncement

3. Informed/ Implied Consent

EXTRICATION - 10

1. Scene Safety/ Command Concept

2. Equipment/ Tools

3. Care of Entrapped Victim

PRECEPTED FLIGHT TRAINING - 40

1. Administration of Medications Under Conditions of Flight

2. Special Medical Problems Related to Flight
3. Patient Handling In and Around Aircraft

EQUIPMENT SKILL STATIONS

- 12

1. Transcutaneous Pacemaker
2. Portable Ventilator/ Resuscitator
3. Syringe Pump
4. MAST trousers
5. Monitor/Defibrillator
6. Pulse Oximeter

REVIEW of MEDICAL PROTOCOLS

- 4

REVIEW of STANDARD OPERATING PROCEDURE MANUAL

- 4

## MONMOUTH-OCEAN HOSPITAL SERVICE CORPORATION

4239 Highway 33 Tinton Falls, NJ 07753 (908) 922-3500 FAX (908) 922-1164

*A Cooperative Venture to Improve Health Care and Reduce Costs*

May 24, 1991

Frances Dunston, MD, MPH  
Commissioner  
State of New Jersey  
Department of Health  
CN. 360  
Trenton, NJ 08625

Dear Commissioner Dunston:

The State Department of Health has requested applications for providers for State Aeromedical Emergency Services in an effort to privatize the existing program. The Monmouth-Ocean Hospital Service Corporation (MONOC) is very interested in having a management role in this vital program, however, we are unable to participate in the present RFA process due to the severe time constraints created by the May 24 deadline. MONOC was unable to investigate the current problems with the present system, develop a cost effective alternative, submit and then receive bid proposals from helicopter vendors and, finally, obtain approval from the various management committees needed to submit a proposal in 3 short weeks.

MONOC has included a summary of our concerns as well as an overview of our proposal for your inspection.

MONOC recognizes the need to privatize the medevac program in order to reduce health care costs in general and to the State in particular. However, we feel the current Request for Application (RFA) process is seriously flawed and may not be capable of bringing about the dynamic changes needed to effectively and efficiently operate the medevac program.

The time frame for submitting the RFA was extremely short. A project as encompassing as revamping the medevac program requires more than 3 weeks to properly plan. No one wants to re-address the medevac problem a second time, so extreme care and diligence should be exercised in the present planning process. Unfortunately, it is evident that at least one agency had advance notice of the RFA proposal process since they had a proposal written prior to any other agency receiving notification of the RFA.

The RFA is very specific in spelling out several requirements that a potential applicant must meet in order to be seriously

## MEMBERS

Bayshore Community Hospital • CentraState Medical Center • Community Medical Center • Jersey Shore Medical Center • Kimball Medical Center  
Medical Center of Ocean County • Monmouth Medical Center • Riverview Medical Center • Southern Ocean County Hospital

considered for designation as a New Jersey Emergency Medical Service Helicopter Response Program. These requirements unfairly bias the RFA process. One example is that an applicant needs to obtain a written affiliation agreement with a Level I trauma center.

MONOC also recognizes that the present program is fraught with excessive costs due to past capital expenditures such as acquisition of the Sikorsky helicopters and the construction of the heliports. However, the current RFA requires that the new program utilize and integrate existing equipment. We believe that this is a mistake. The Sikorsky helicopters are too expensive to operate and maintain to be used in this industry. While heliports will continue to be used as destination landing zones, the existing heliports are not centrally located and should not be used to base the helicopters. Additionally, there is no fuel storage capabilities at either site. Fuel costs for helicopters represent a significant percentage of overall operating costs. These costs increase if the helicopters are required to fly to refuel. Future providers should not be required to pay for past mistakes.

Finally, there are several acts of legislation that appear to question the legality of the RFA process. The two present providers of the program have Certificates of Needs that have not been repealed. There is also a statutory predisposition to utilizing the State Police to operate the helicopters and to using two helicopters. MONOC feels that any proposal to overhaul the current program needs to be free of all unnecessary assumptions and legal constraints. Additionally, while privatization should relieve the State of the burden of subsidizing the program, there may need to be new legislation introduced to provide for a permanent funding device.

MONOC has identified several specific problems with the existing medevac program:

1. The cost of the existing program is exorbitant. The present cost to the state for operating only 16 hours per day is in excess of 6.2 million dollars per year. This is due in part to the fact that the cost of operating the existing aircraft is considerably higher than most other aircraft. The Sikorsky helicopters are rarely used in medevac operations across the country because they have a very high cost for maintenance and operation in addition to the extra cost of the second pilot. The Sikorsky is also out of service for maintenance purposes considerably longer than most other helicopters used in the industry.

Justification for the use of the Sikorsky helicopters usually centers around decreased response times as a result of its ability to fly at higher speeds. As the average one-way flight in New Jersey is approximately 45 miles, the time saved is less than 2 minutes. This insignificant savings in response time does not justify the excessive expense of the Sikorsky. Additionally, the

National Transportation Safety Board has cited excessive speed as being the single biggest reason that aeromedical helicopters have a higher incidence of accidents than any other aircraft.

2. The program is fragmented and, therefore, not a true state-wide network. The fragmentation has resulted in each program developing a separate identity which has resulted in varying utilization patterns by requesting agencies throughout the state as evidenced by the disparity of call volumes reported by each program. SouthStar, which is administered by the West Jersey Health System (WJHS), is consistently utilized significantly more than NorthStar, which is administered by the University of Medicine and Dentistry (UMDNJ), despite its less populated coverage area. There is also a significant difference in the two programs' ability to collect payments for the services rendered. Once again, UMDNJ significantly lags behind WJHS.

3. New Jersey's medevac program transports considerably fewer patients per helicopter than comparable services in the Northeast. New Jersey's combined transport volume for 1990 was 903 compared to a regional average of 812 per helicopter as reported in the March 1991 issue of Air Medical Transport. Off-hour incursions by out-of-state providers represent a small percentage of overall flights. Additionally, MONOC has been approached by members of the New Jersey State First Aid Council to develop a ground transportation plan for MONOC's coverage area. As MONOC is a comparatively heavy user of JemStar, this would reduce the utilization statistics even further.

One important explanation for the poor utilization numbers is that the non-trauma center hospital community perceives the present northern medevac system to be self-serving. The concern is that patients can very easily be over-triaged and flown to trauma centers unnecessarily. This represents a loss of revenue to local hospitals and a gain for the trauma center. As a result, many patients who should be transported to trauma centers are transported to local hospitals instead. All indications are that this problem will continue as long as community hospitals feel that they have no input in the operation of the medevac program.

A second important reason for the under-utilization of the air medical emergency service program is that the northern component of JemStar has not been integrated with the pre-hospital emergency medical services in the area. NorthStar is very closely associated with the Newark area and UMDNJ. SouthStar, on the other hand, is perceived to service all of Southern New Jersey as it is not closely affiliated with any localized region. WJHS operates nine paramedic units that service the majority of South Jersey. They also utilize dispatch sites in three different counties.

A third reason for the poor utilization record of Jemstar is the perception that the service is unreliable. In addition to the lack of night time service in New Jersey, there have been several instances of excessive response times and mission

cancellations that have resulted in a tremendous lack of confidence in the existing system by the EMS community.

4. Two of the State's Level I trauma centers border on other states. UMDNJ, in Newark, borders New York and Cooper Medical Center borders Pennsylvania. Half of the coverage area that surrounds these two hospitals is out of state. The inefficient placement of the medevac helicopters reduces their effective service area and increases their response times. This detracts from their intended mission of rapid transportation and increases the frequency of cancellations due to extended estimated times of arrival.

5. There is no permanent funding instrument in place. A service as vital as the medevac program should not be dependent on market variations or changing political environments. There must be a measure of stability which can only be achieved with a permanent, earmarked funding device.

MONOC feels strongly that there should be minimal direct patient billing for the cost of the medevac transports. Essentially, all aspects of third party reimbursement, including reimbursement for physician charges, are coming under close scrutiny. Based upon a 65% collection ratio (a conservative industry standard) and 377 proposed transports by NorthStar for 1991, the charge per flight would need to be \$7345 in order to break even. Obviously, a charge of this magnitude would meet a great deal of resistance from 3rd party providers and make direct patient billing an inherently unstable source of funding. In 1990, NorthStar only flew 326 missions and, as of April, it has shown negative growth in 1991. Obviously, if this trend continues, the charge will be even higher.

Many national medevac programs directly bill the receiving trauma centers for the cost of transporting patients there. This may not work in New Jersey for two important reasons. First, New Jersey's trauma centers are already financially strained. The trauma centers are located in areas that have traditionally high levels of uncompensated care and, therefore, have high uncompensated care surcharges. Second, the Level I trauma centers are affiliated with UMDNJ which is a State entity. Billing the trauma centers for the cost of the medevac flights would defeat the whole purpose of the privatization initiative as the costs would merely be shifted from direct subsidy to indirect subsidy.

MONOC's application for designation as a State Aeromedical Emergency Services Provider would have proposed to make the following changes:

1. Contract an experienced air medical vender to provide all the aviation needs for the program utilizing a smaller, cost-effective helicopter. The cost of operating NorthStar in this



fashion would have been 1.8 million dollars per year. This would represent an immediate 42% savings to the state.

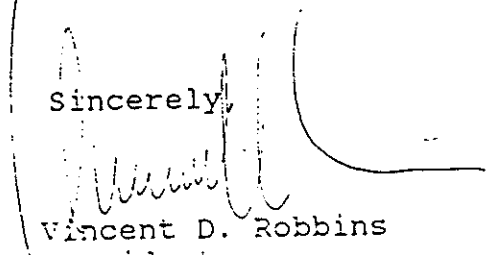
2. Implement a change in legislation that will provide for earmarked funding for the State Air Medical Emergency Services. Interim revenue would have been provided by a state subsidy and a token MICU patient charge per flight for medical expenses. While the State would have had to continue to subsidize the program in the short-run, it would still show a substantial savings from the re-structuring. Additionally, the Governor and State Legislature would have a natural incentive to pass the proposed legislation to remove the program subsidy from the State Budget.

3. Establish an advisory board which would include a representative from all of the following groups or organizations: The Level I and II Trauma Centers, the 911 dispatch centers, the State First Aid Council, the MICU administrators and medical directors.

4. Monoc would also have made several operational changes to increase the productivity of the existing service. Included in these changes were: move NorthStar from its' present location to a centralized heliport in Somerset County, utilize SouthStar's dispatch center to facilitate response times and enhance the operational profile by ensuring 24 hour service and a guaranteed medevac response upon request.

It is unfortunate that the time frame for the RFA process was not sufficiently long enough to allow MONOC to solicit the necessary approvals to submit our completed proposal. We hope that you will consider some of our concerns while reviewing other applications.

Sincerely,



Vincent D. Robbins  
President

APPENDIX H

1 There are appropriated such sums as are collected pursuant to section 19 of  
2 P.L. 1981, c. 279 (C. 13:1E-67); section 3 of P.L. 1988, c. 61 (C. 58:10A-49);  
3 section 9 of P.L. 1970, c. 39 (C. 13:1E-9); section 2 of P.L. 1987, c. 138 (C.  
4 13:1E-9.2); sections 20 and 24 of P.L. 1989, c. 34 (C. 13:1E-48.20 and  
5 13:1E-48.24); and section 13 of P.L. 1987, c. 333 (C. 13:1E-191) as are required  
6 to pay awards authorized by these laws and for public awareness programs,  
7 subject to the approval of the Director of the Division of Budget and  
8 Accounting.  
9 Notwithstanding the provisions of any other law, in addition to the amount  
10 hereinabove for Action grants-State match, funds obtained through seizure,  
11 forfeiture, or abandonment pursuant to any federal or State statutory or  
12 common law, and the proceeds of the sale of any such confiscated property  
13 or goods, are appropriated as required for matching additional federal funds  
14 as designated by the Attorney General; provided however, that the  
15 expenditures thereof shall be subject to the approval of the Director of the  
16 Division of Budget and Accounting.  
17 The unexpended balance as of June 30, 1991 in the Action grants-State match  
18 account is appropriated for the same purpose.  
19 The unexpended balance as of June 30, 1991 in the JJDP-State match account,  
20 including the accounts of the several departments, is appropriated for the  
21 same purpose.  
22 Receipts in excess of the amount anticipated from license fees and/or audits  
23 conducted to ensure compliance with the "Private Detective Act of 1939,"  
24 P.L. 1939, c. 368 (C. 45:19-5 et seq.), are appropriated to defray the cost of  
25 this activity.  
26 Notwithstanding any other provision of this act, receipts derived from the sale  
27 of helicopters as well as the unexpended balance of such sum as of June 30,  
28 1991 are appropriated, subject to the approval of the Director of the Division  
29 of Budget and Accounting.  
30 The unexpended balance as of June 30, 1991 in the Drunk driver fund program  
31 account, together with any receipts in excess of the amount anticipated, is  
32 appropriated subject to the approval of the Director of the Division of  
33 Budget and Accounting.  
34 The amount hereinabove for the Drunk driver fund program is payable out of  
35 the dedicated fund designated for this purpose and any amount remaining  
36 therein. If receipts to the fund are less than anticipated, the appropriation  
37 shall be reduced proportionately.  
38 The unexpended balance as of June 30, 1991 in the Emergency telephone  
39 system account is appropriated for the same purpose.  
40 Notwithstanding the provisions of section 3 of P.L. 1983, c. 392 (C. 13:1E-128),  
41 receipts derived from fees and penalties pursuant to the solid and hazardous  
42 waste industry disclosure law, P.L. 1983, c. 392 (C. 13:1E-128 et seq.) are  
43 appropriated for the cost of the administration of that act, and such  
44 appropriation shall be allocated to the Department of Law and Public Safety  
45 and the Department of Environmental Protection, subject to the approval of  
46 the Director of the Division of Budget and Accounting.

1 Notwithstanding the provisions of section 3 of P.L.1986, c.106 (C.26:2K-37), of  
2 the amount hereinabove appropriated for the New Jersey State Police to  
3 operate the Air ambulance program, up to \$1,500,000 subject to the approval  
4 of the Director of the Division of Budget and Accounting, may be available  
5 to subsidize a private entity or public entity other than the New Jersey State  
6 Police for the operation of emergency medical helicopter transportation  
7 service. The New Jersey State Police need not provide air ambulance  
8 service when so provided by such other entity.

9  
10 **13 Special Law Enforcement Activities**  
11 17-1420 Election Law Enforcement..... \$1,051,000  
12 20-1450 Review and Enforcement of Ethical Standards..... 268,000  
13 21-1400 Regulation of Alcoholic Beverages..... 1,814,000  
14 22-1410 Regulation of Racing Activities..... 3,424,000  
15 27-1480 State Athletic Control Board..... 849,000  
16 Total Appropriation, Special Law  
17 Enforcement Activities..... \$7,406,000

18 Personal Services:  
19 Salaries and wages.....( \$6,152,000)  
20 Materials and Supplies.....( 268,000)  
21 Services Other Than Personal.....( 776,000)  
22 Maintenance and Fixed Charges.....( 198,000)

23 Special Purpose:

24 Per diem payment to members of the  
25 Election Law Enforcement Commission( 13,000)  
26 In addition to the amount appropriated hereinabove for Regulation of Alcoholic  
27 Beverages, receipts in excess of the amount anticipated, attributable to  
28 changes in fee structure or fee increases, are appropriated, subject to the  
29 approval of the Director of the Division of Budget and Accounting.  
30 In addition to the amount appropriated hereinabove for Regulation of Racing  
31 Activities, receipts in excess of the amount anticipated, attributable to  
32 changes in fee structure or fee increases, are appropriated, subject to the  
33 approval of the Director of the Division of Budget and Accounting.  
34 All fees, fines, and penalties collected pursuant to P.L. 1973, c. 83 (C.  
35 19:44A-1 et al.) and section 3 of P.L. 1981, c. 180 (C. 32:13C-22.2) are  
36 appropriated for the purpose of offsetting additional operational costs of the  
37 Election Law Enforcement Commission, subject to the approval of the  
38 Director of the Division of Budget and Accounting.  
39 Notwithstanding the provision hereinabove, amounts received pursuant to  
40 P.L.1973, c.83 (C.19:44A-1 et seq.) and section 5 of P.L.1971, c.183  
41 (C.32:13C-22) from changes in fee structure or from fee increases are  
42 appropriated for the purpose of offsetting additional operational costs of the  
43 Election Law Enforcement Commission, subject to the approval of the  
44 Director of the Division of Budget and Accounting and the Joint Budget  
45 Oversight Committee.  
46 Receipts in excess of the amount anticipated are appropriated for additional  
47 State Athletic Control Board activities, subject to the approval of the  
48 Director of the Division of Budget and Accounting.

APPENDIX B-3

1 There is appropriated from the "Drug Enforcement and Demand Reduction  
 2 Fund" \$9,012,000 to fund the Community drug programs (State share;  
 3 account of this amount \$923,000 is appropriated for 50 licensed drug and  
 4 alcohol treatment beds at the Meadowview Hospital in Hudson county.

5 There is appropriated from the Alcohol Education, Rehabilitation and  
 6 Enforcement Trust Fund \$420,000 to fund the Local alcoholism  
 7 authorities-expansion account.

8 Notwithstanding the provisions of P.L. 1987, c. 370 (C. 26:2-146 et seq.), the  
 9 amounts hereinabove appropriated for Special health services for  
 10 handicapped children and Cleft palate programs are appropriated from the  
 11 Catastrophic Illness in Children Relief Fund.

12 The amount hereinabove appropriated for the Fetal alcohol syndrome program  
 13 is appropriated from the Alcohol Education, Rehabilitation and Enforcement  
 14 fund.

22 Health Planning and Evaluation--Grants-In-Aid

16 06-4260 Health Facilities Evaluation..... \$1,809,000  
 17 Total Appropriation, Health Planning and  
 18 Evaluation..... \$1,809,000

19 Grants:

20 Emergency medical services.....( \$209,000)  
 21 New Jersey emergency medical service  
 22 helicopter response program.....( 1,175,000)  
 23 Poison control center.....( 425,000)

24 The Department of Health shall require its subcontractors under the New  
 25 Jersey emergency medical service helicopter response program established  
 26 pursuant to P.L. 1986, c. 106 (C. 26:2K-35 et seq.) to seek reimbursement  
 27 through third party billings for services rendered.

28 Receipts from third party billings for the New Jersey emergency medical  
 29 services helicopter response program shall be retained by subcontractors as  
 30 program income.

31 Total Appropriation.....  
 32 Department of Health..... \$30,391,000  
 33

34 50 DEPARTMENT OF HIGHER EDUCATION

35 30 Educational, Cultural and Intellectual Development

36 38 Higher Educational Services

37 3400 Office of the Chancellor--Grants-In-Aid

38 02-5400 Support to Independent Institutions..... \$28,422,000  
 39 03-5400 New Jersey Educational Opportunity Fund..... 25,892,000  
 40 04-5400 Student Financial Support Services..... 91,798,000  
 41 99-5400 Management and Administrative Services..... 9,044,000

42 Total Appropriation.....  
 43 Office of the Chancellor..... \$133,134,000

44 Grants:

45 Veterinary medicine education  
 46 program.....( \$1,427,000)  
 47 Aid to independent colleges and  
 48 universities.....( 20,120,000)