

AVIATION DIVISION



MARYLAND STATE POLICE
PIKESVILLE, MARYLAND 21208

301 486-3101 Ext 235 or 236
301 484-8446

BASIC OPERATING CONCEPT

Primary Area Assignments

The primary purpose of the helicopters is to provide support to all police operations statewide 24 hours everyday. Life saving missions are assigned the highest priority. Major objectives include providing routine road patrol during peak hours and performing routine police duties that help get our job done more efficiently and economically. Experience has shown that the helicopters are most effective when their operations are confined to areas less than 60 miles in diameter. Our helicopters are assigned small primary areas in which they are immediately available for all operations and secondary areas in which they are available on short notice for emergencies and special operations. Additional aircraft, when obtained, will be based around the state so as to improve service. Present helicopters are assigned as follows:

- A. One helicopter is assigned primarily to the Greater Baltimore area which is: Anne Arundel County (U.S. Route 50 and North), Baltimore, Carroll, Harford and Howard Counties. It's secondary area includes Cecil County, all of the Eastern Shore and the Chesapeake Bay.
- B. One helicopter is assigned primarily to the Greater Washington area which is: Prince Georges and Montgomery Counties. It's secondary area is all of Southern Maryland.
- C. One helicopter is assigned primarily to the Frederick and Washington area with the secondary responsibility for the two extreme Western counties.
- D. One helicopter, held in reserve, is used to relieve the other helicopters when they are down for maintenance and covers secondary areas when all are flyable.

Availability

The helicopters are manned and immediately available 24 hours everyday. They can be used upon request by anyone. In urgent situations when immediate action is of paramount importance, request should be made to the helicopter crews by the most direct and rapid means of communications available to the person initiating the request. The helicopter crews are equipped to rapidly evaluate each request and either do the job or advise another course of action.

Equipment

The helicopters - Bell 206B JetRangers - cruise at 130 MPH with a range of 400 miles, and are equipped as follows:

- A. Five seats (includes pilot's seat).
- B. Amphibian landing gear which permits landings to be made on water as well as land. Landings can be made in relatively small, unimproved areas.
- C. State Police radio covering all active channels.
- D. Internal litters for two patients. A pilot and one other person can be carried in addition to the patients when the litters are installed.
- E. High intensity searchlight that can illuminate a three hundred foot square area with sufficient intensity to see a person anywhere in it's beam.
- F. Standard equipment needed to permit flying at night.

Types of Service/Support

Following is a list of missions these units can perform, in most cases on a 24 hour basis. This listing should not be considered as complete or a limit of the operations that will be supported.

- A. Highway patrol - the helicopters do routine patrol in their primary area each weekday from 0630 to 0830 hours and from 1630 to 1830 hours. Friday afternoon patrol extends to 1930 hours, and Saturday and Sunday patrols are done at those times as conditions dictate. Expediting the safe orderly flow of traffic is the major purpose. Patrol by helicopters is very effective as large areas are covered rapidly and completely. Hazards and problems located are reported to surface units. Field commanders and patrol supervisors are encouraged to ride as observer during these patrols. This will assist these commanders in learning their problem areas and help them assign surface patrol units. The aircraft are also available upon request for unscheduled patrols. NOTE: Surface units are benefited when the helicopter provides general support (searches, etc.) and allow them to remain on patrol.

- B. Airborne ambulance - In the primary areas the helicopters are immediately available to transport persons with life threatening injuries or illness from the scene of the incident to the University Hospital Trauma Center in Baltimore. When the trooper controlling the scene has reason to believe injuries or illness are life threatening he will request a helicopter and ambulance through his barrack. His barrack will request the helicopter and the helicopter crew will immediately advise if the victim should be held at the scene for the helicopter or dispatched by surface ambulance.
- C. Traffic control command post - Before and during fairs, races and disturbances and other larger gatherings of persons, a helicopter can be used to determine the best placement of manpower for traffic control and flow. During these events it can spot impediments to traffic, have them cleared, advise how traffic can best be routed and provide general support if an accident should occur. The patrol supervisor or other person in command can often exercise maximum effective control of these operations when he is flown in a helicopter. The helicopters mobility, wide area of observation and communications make it a very effective command post.
- D. Support in disasters and civil disturbances - It can be used to transport critically needed persons and supplies, provide airborne lighting, act as surveillance platform and mobile control center at disasters such as floods, aircraft crashes, riots and demonstrations. NOTE: A helicopter can provide effective surveillance of roof-tops to suppress snipers and rock throwers in civil disturbances.
- E. Search and rescue - The helicopter is quite effective in conducting searches for and bringing aid to persons, boats, aircraft, or those threatened by conditions due to snow emergencies, floods, etc. In searches, adequate coverage is generally provided in relatively open areas, but is limited in wooded areas where foliage is heavy. Manpower and time requirements for searches can often be reduced by using the helicopter. Request should be made for the helicopter immediately as rapid response and immediate search may help assure success.
- F. Criminal investigation support -
1. Escaped prisoners and persons fleeing crime scenes can often be confined to an area and prevented from moving if the helicopter is brought into the area rapidly to support other search units. Past experience indicates that this gives the ground units more time to complete a detailed search and puts pressure on the suspect where he may do something to cause his apprehension. In cases such as bank robberies involving a vehicle that may be abandoned, the helicopters are very effective in establishing if the vehicle is in a given area.

2. General area searches for stolen cars and property that may be abandoned in rural, wooded or isolated areas.
 3. Surveillance and trailing of vehicles and persons suspected in involvement in criminal activity (such as numbers running, dope, transport, etc.).
 4. Aerial photography and area survey in cases of murder, arson, marijuana growing, etc.
- G. Route surveys and security - The helicopter can help determine routes manpower requirements for security of routes during VIP transports and other critical surface transports such as large money shipments. It can provide direct security by keeping the transport under surveillance.

Airplane Operations

The Departmental airplane, a six-place unit with a cruising speed of 180 MPH, will be used for long range transportation (such as prisoner returns from out-of-state). Requests for such use are made through local channels to the Aviation Division.

Miscellaneous

The Aviation Division will act as an advisory agent for the Department in all aviation operations by and/or for the Department. This includes any flying in private, rented or loaned aircraft where such missions are flown in support of this Department. Such flying will only be done with prior approval.

BELL JETRANGERS
Model 206B

Powerplant - Allison 250 C20B
420 SHP
Speed Cruise - 118 K
VNE - 122 K
Range - 330 N.M.
Fuel - 494 pounds (76 gallons)
Weight - 3,200 gross
Passenger - 5 or
Capacity 2 crew w/2 patients

Missions Performed

Traffic Patrol
Criminal Suppression
Search/Rescue
Medical Treatment/Evacuation
Fire Control

SIKORSKY (S-58)
HH 34J

Powerplant - Wright R-1820-840
Aircooled 9 cylinder radial
Speed Cruise - 128 K
VNE - 150 K
Range - 385 N.M.
Fuel - 1,800 pounds (300 gallons)
Weight - 12,068 gross
Passenger - 17 or 4 crew
Capacity w/6 patients
Hoist Load - 600 pounds
Sling Load - 5,000 pounds

Missions Performed

Search/Rescue
Medical Treatment/Evacuation
Tactical Troop Movement
Executive Transport

PIPER AZTEC
PA 23-250

Powerplant - 2 each IO 540-C485
Lycoming
Speed Cruise - 150 K
VNE - 216 K
Range - 650 N.M.
Fuel - 865 pounds (144 gallons)
Weight - 5,200 gross
Passenger - 6
Capacity

Mission Types

Prisoner Extradition
Criminal Investigations
Executive Transport

PILOTS

PERSONNEL

- Selected from field units on volunteer request basis.

REQUIREMENTS

- 1. Minimum two years service;
- 2. hold at least a FAA commercial rotor wing license;
- 3. possess knowledge of geographical locations throughout the entire state;
- 4. must be an above average performer.

TRAINING

- 1. Obtain twenty (20) hours of ground school in the Bell Jetranger transition course given by Bell Helicopter Corporation, Fort Worth, Texas;
- 2. obtain twenty (20) hours ground school in the Allison 250-C18 engine operations course by Allison Engines in Indianapolis, Indiana;
- 3. fly a minimum of forty (40) hours in the Jetranger with senior division check pilot for standardization in the aircraft and training in police aviation utilization;
- 4. pilots are given a standardization flight check once every six months. These rides emphasis precision, exchange of new ideas and procedures.

The Department pays only for the training as indicated in items 1 through 3. Pilot candidates can be sent back to the field at anytime during the training phase if the Division Commander feels this action is warranted.

OBSERVER-MEDIC

- PERSONNEL - Selected from field units on volunteer request basis.
- REQUIREMENTS -
1. Minimum two years service;
 2. hold valid Advanced Red Cross First Aid Certificate;
 3. possess knowledge of geographical locations throughout the entire state;
 4. must be an above average performer.
- TRAINING -
1. Sixty (60) hours (EMT) Emergency Medical Technician Course, University of Maryland Fire Service Extension, College Park, Maryland;
 2. eighty (80) hours (OJT) on the job training at The Maryland Institute for Emergency Medicine, Shock Trauma Unit, University Hospital, Baltimore, Maryland;
 3. two (2) days (OJT) at Baltimore City Hospitals Premature Baby Intensive Care Unit and Burn Treatment Center;
 4. yearly retraining in all related emergency care treatment.
- DUTIES - Generally in charge of helicopter police operations, i.e.
1. deciding missions to be flown;
 2. radio control with patrols and installations;
 3. flight activities;
 4. logs;
 5. planning;
 6. treatment of injured patients.

BOTH OBSERVER-MEDIC AND PILOT MUST WORK HARMONICUSLY TOGETHER TO PERFORM AT TOP EFFICIENCY. BOTH MUST KNOW WHAT TO EXPECT FROM EACH OTHER UNDER ALL CONDITIONS. IMPROVEMENTS AND REFINEMENTS ARE ALWAYS UPPERMOST IN THE MINDS OF EVERY CREW.

MEDICAL EQUIPMENT

- 1 bag mask resuscitator with one adult and one infant mask
- 1 portable suction unit
- 1 "E" size oxygen bottle with one liter flow gauge and one quick disconnect
- 1 cardiac monitor
- 6 airways - 2 large, 2 medium, 2 small
- 10 compresses - 7" x 8" - 6 ply or equal amount of Modess pads
- 12 rolls self-adhesive bandage - 4" x 2½ yards
- 6 tongue depressors - padded
- 1 tube of glucose
- 2 air aplints - 1½ arm, 1½ leg
- 1 cervical collar - large
- 1 roll of adhesive tape
- 16 bandaids
- 10 ammonia inhalants
- 2 blankets - (winter - 1 wool, 1 disposable type)
(summer - 2 disposable type)
- 2 collapsible litters - also used as back boards
- 1 pair heavy duty bandage scissors assigned to each man
- 1 pen type flashlight per man (personal purchase)
- 1 blood pressure cuff (personal purchase)
- 1 stethoscope (personal purchase)

POLICE EQUIPMENT

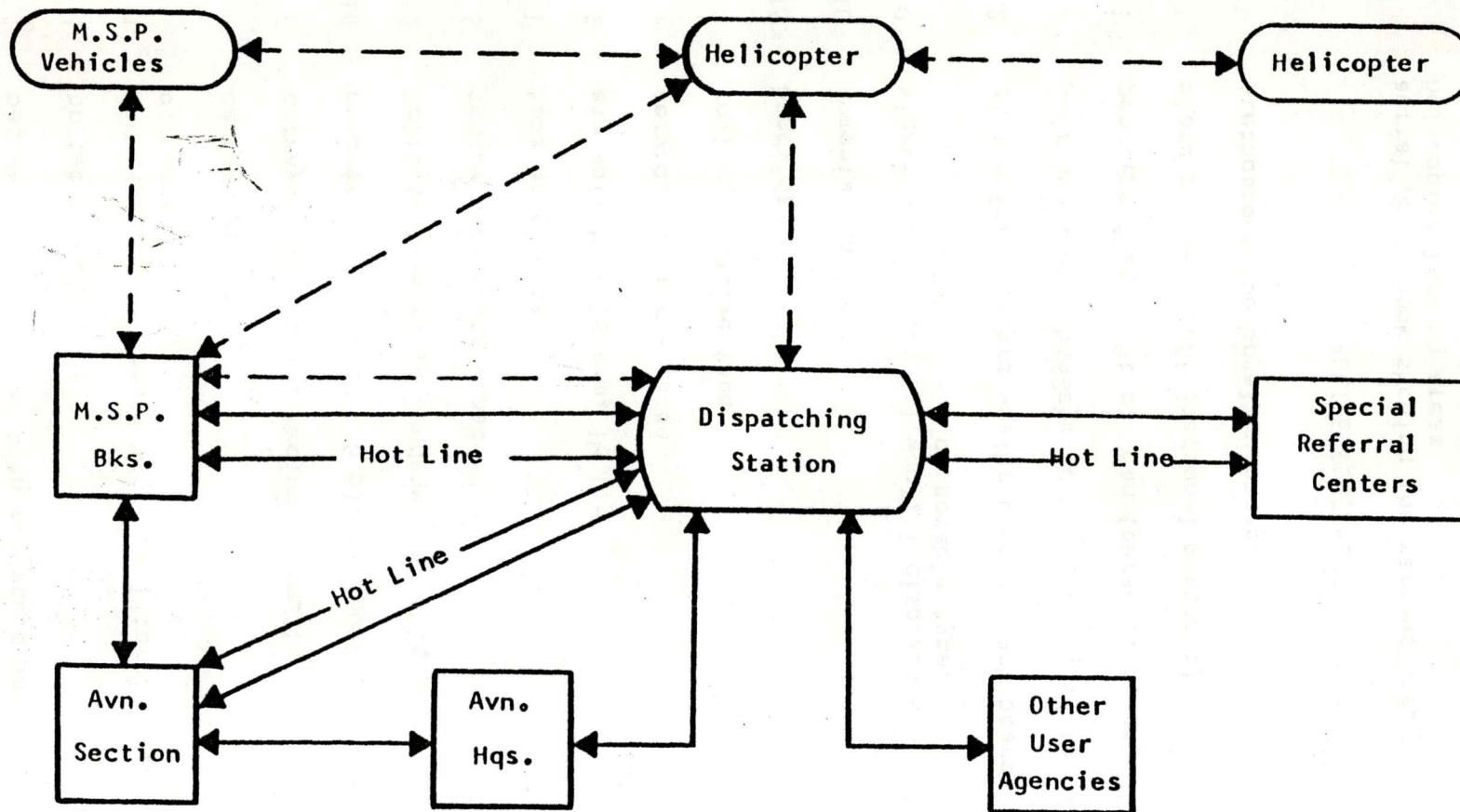
aerial photo book showing the various hospitals and their helicopter landing areas

detailed maps of all the counties within the state

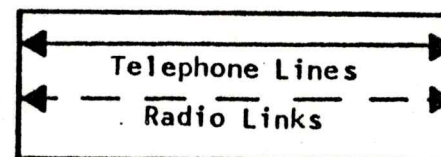
multi-channel police radio

remote controlled searchlight

MARYLAND STATE POLICE AVIATION DIVISION - COMMUNICATION SYSTEM

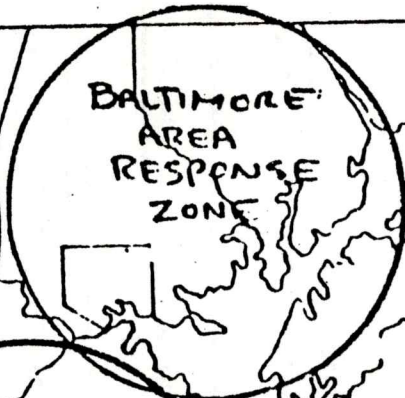
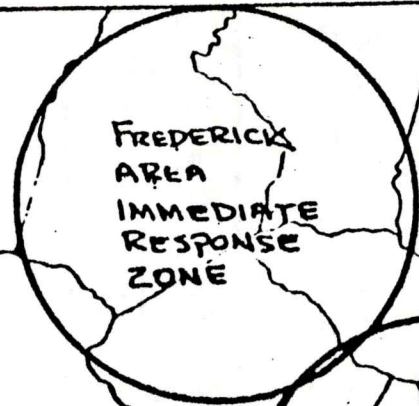


LEGEND



Gay E Moore 1ST Lt
Commander - Aviation Division

SECONDARY RESPONSE ZONE



**M.S.P. AVIATION DIVISION
HELICOPTER ASSIGNMENT
AND RESPONSE ZONES.**



SECONDARY
RESPONSE
ZONE

SECONDARY
RESPONSE
ZONE

AVIATION DIVISION STATISTICAL REVIEW SUMMARY 1970 thru 1974 and totals to date.

Mission Category	1970	1971	1972	1973	1974	Accumulative Totals
Medical Tran						
Scene	98	155	307	389	488	1437
Hospital	95	151	248	278	326	1098
Babies	4	85	161	173	237	660
	<u>197</u>	<u>391</u>	<u>716</u>	<u>840</u>	<u>1051</u>	<u>3195</u>
SURVIVED -	<u>173</u>	<u>318</u>	<u>564</u>	<u>652</u>	<u>837</u>	<u>2544</u>
Accidents located	37	56	88	60	34	275
Traffic Violations w/apprehen	16	90	94	52	37	289
Motorist Assists	32	204	166	119	99	620
Assisted/w apprehension wanted per	?	?	72	69	73	214
Demonstration	52	49	91	94	171	457
Total Criminal Support Missions	219	592	717	564	197	2289
Total all other Missions	2069	5768	7358	6562	6948	28,705
Total Missions	2537	6800	8882	8060	7999	34,278
Total Flight Hours	1954.4	3582.6	4488.1	3458.1	3794.6	17,277.8
Total Duty Hours	13,872.0	21,484.0	28,406.0	27,882.6	33,707.0	125,351.6