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STAFF STUDY ON THE
USE OF HELICOPTERS IN EMERGENCY MEDICAL SERVICES

Prepared by
National Highway Safety Bureau
Highway Safety Programs Service
Division of Emergency Treatment and
Transfer of the Injured

EXCERPTS FROM THE ABOVE

If it is to be used economically on the highways, it must by necessity be a multi-mission machine that can be kept busy in such diverse missions as SAR, fire patrol, photography, personnel transportation, investigations, search for missing persons, detecting violations of aeronautical regulations, searching for stolen cars, and highway patrol, but always with a priority for evacuation of injured persons.

If the machine can be kept employed on a multi-mission basis such as has been described, it can prove cost-effective, but it is unlikely that many States can afford helicopters just to stand by and evacuate victims of highway accidents, or that such limited use can be justified.

See Article on "The Helicopter in Emergency Transportation" issued by the Committee on Injuries - American Academy of Orthopaedic Surgeons (orange book).

FEB. 19, 1968

<u>VIP Flights</u>	<u>Missions</u>	<u>Flight Time</u>	<u>Total Time</u>	<u>Grand Total of All Missions</u>
1970	132	182.5	304.8	2,537
1971	90	85.2	158.1	6,800
1972	111	101.6	175.0	8,882
1973	72	71.3	162.7	8,017
1974	61	79.5	150.4	7,989
TOTALS	466	520.1	951.0	34,225
	1.3%	3.0%	0.8%	

MED-EVAC TRANSPORTS - FIVE (5) YEAR ACCUMULATED TOTALS

	1970	1971	1972	1973	1974	TOTALS
SCENE	98	155	307	389	488	1437
INTER-HOSPITAL	95	151	248	278	321	1093
BABY	4	85	161	173	237	660
TOTALS	197	391	716	840	1051	3195
NUMBER SURVIVED	173	318	564	652	835	2542
PERCENT	88%	82%	79%	78%	80%	80%

MARCH 18 to 31, 1970

		<u>NUMBER</u> <u>MISSIONS</u>	<u>FLIGHT</u> <u>TIME</u>	<u>TOTAL</u> <u>TIME</u>	
1.0	TRANSPORTATION				
1.1.1.1	M/V Accident	1	.1	.5	
1.1.1.5	Other Accident	1	.5	2.0	
1.2	Medicine/Serum	1	1.6	2.0	
1.4.2	VIF's	3	7.1	16.0	
1.4.3	Technical	2	9.3	17.0	
1.4.4	Other	2	5.0	9.0	
	Total	10	23.6	46.5	
2.0	TRAFFIC				
2.3.2	Road & Traffic Conditions	13	35.8	35.8	
2.3.3	Abandon/Stolen vehicles	1	2.1	3.0	
2.4.2	Peak Hours	11	31.8	31.8	
2.4.3	Accident/disaster areas	1	1.0	2.0	
	Total	26	71.0	72.6	
3.0	SEARCH & RESCUE				
3.1.2	Other	3	5.4	7.0	
3.2.2	Other	7	12.4	22.0	
	Total	10	17.8	29.0	
5.0	CRIME				
5.1.2	Tracking	1	1.0	1.0	
5.2.1	Civil disturbance	1	2.0	8.0	
5.2.2	Criminal Activity	1	1.5	4.0	
5.2.3	Recovery of Property	1	.8	1.0	
	Total	5	5.3	14.0	
6.0	SERVICE & TEST				
6.1	Craft	Total	1	1.0	2.0
7.0	TRAINING	Total	2	2.1	7.0
8.0	DEMONSTRATION	Total	2	2.3	8.0
10.0	OTHER ACTIVITIES				
10.2	Refueling, A/C Maint., etc.	Total		66.7	
11.0	ON CALL	Total		39.2	
12.0	AIRCRAFT GROUNDED				
12.1	A/C down for maintenance	Total		27.0	
	TOTAL FOR MARCH	56	123.1	312.0	

MARYLAND STATE POLICE AVIATION DIVISION
U. S. DEPARTMENT OF TRANSPORTATION GRANTS

The following Highway Safety project grants were applied for and approved by the Federal Department of Transportation. All projects were applied for under Public Law 89-564 Section 402(C) as 315 Police Traffic Services. At no time were funds obligated for more than one helicopter.

#1 Project PT 69-1-001
approval date: June 2, 1969
by: A. Bremmer, Acting Director, National Highway Safety Bureau
Funds obligated: \$307,191.00
Grant Period: July, 1969 to June, 1970
Project Period: July, 1969 to June, 1970

#2 Project PT 69-001 (003)
approval date: December 30, 1970
by: Frank D. Altobelli, Regional Director, National Highway
Safety Bureau
Funds obligated: \$352,991.00
Grant Period: January, 1971 to June, 1972
Project Period: July, 1969 to June, 1973

NOTE: This project suspended and not reinstated until June 25, 1971.

#3 Project PT 69-001 (004)
approval date: June 25, 1971
by: Charles L. Allwine, Acting Regional Administrator
Funds obligated: \$366,944.26
Grant Period: January, 1971 to June, 1972
Project Period: July, 1969 to June, 1973

#4 Project PT 72-1(A) REINSTATEMENT OF SUSPENDED FUNDS
approval date: November 24, 1971
by: Richard H. Turk, Acting Highway Safety Coordinator
Funds obligated: \$66,246.74
Grant Period: July, 1971 to June, 1972
Project Period: July, 1969 to June, 1973

#5 Project PT 72-7 MONIES TO PURCHASE REPLACEMENT AIRCRAFT FOR ONE DESTROYED
IN CRASH ON JULY 3, 1971

approval date: November 23, 1971
by: Richard H. Turk, Acting Highway Safety Coordinator
Funds obligated: \$93,000.00
Grant Period: September 15, 1971 to June 30, 1972
Project Period: September 15, 1971 to June 30, 1972

Notice of cancellation of all helicopter projects delivered to this Division by Mr. Frank Norris for Donald G. Heene, Highway Safety Management Specialist, Federal Department of Transportation. The effective date of cancellation was July 12, 1972.

ACCUMULATIVE FIVE YEAR TOTALS

	<u>Missions</u>	<u>% of Missions</u>	<u>Flight Time</u>	<u>Total Time</u>
Transportation (includes "Med-Evac", blood, serum & organ relays, MSP and VIP flights)	7,677	22.5	4,077.2	5,873.0
*VIP flights	466	1.3	520.1	951.0
Traffic (routine & peak hour patrol, enforcement, motorist assist, special events)	21,030	61.5	10,119.8	10,439.9
Search/Rescue	1,127	3.3	668.2	826.2
Reconnaissance	139	.4	102.7	124.2
Crime	2,524	7.4	1,456.4	1,802.8
Service/Test	527	1.5	278.5	377.9
Training	382	1.1	359.0	500.2
Demonstrations	457	1.3	53.9	598.9
Law Enforcement (Other)	96	.3	30.2	37.8
Other Miscellaneous Activities	266	.7	68.0	55,095.8
Aircraft On Call				18,430.8
Aircraft Grounded				
Maintenance				20,906.8
Weather				3,369.3
No Crew				4,817.5
TOTALS	34,225	100.0%	17,214.0	123,201.1

* VIP flights during the last five year period are as listed above in first category of transportation. These flights amounted to: 1.3% of total number of missions
3.0% of total flight time
.8% of total time