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ATTACHMENT 5

MSP OPERATIONS MANUAL CHAPTER 3 (SYSCOM)

10 Pages

DEPARTMENT OF STATE POLICE
AVIATION COMMAND
OPERATIONS MANUAL

CHAPTER 3

I. SYSCOM- Systems Communications Center (Syscom)

Syscom is a 24 hour operations center currently located at 653 West Pratt Street, Baltimore, Maryland. Syscom provides central aircraft dispatching and emergency communications liaison between the county 911 centers, police stations or barracks, hospital systems, responding aircraft and ground units. Syscom operates as an interagency team, combining roles, responsibilities and personnel from the MSP Aviation Command and from the Maryland Institute for Emergency Medical Services Systems (MIEMSS).

Central Dispatch: Any public service agency authorized to utilize an MSP aircraft will participate in the central dispatch concept, rather than direct calls to the hangar. Agencies will be provided with the toll-free number to contact SYSCOM. If the four toll-free numbers are "busy", agencies can use the EMSTEL telephone network if available.

A. ORGANIZATION- Syscom is comprised of the following watchstanders:

One MSP Aviation Command Duty Officer (SDO)
Two MIEMSS Syscom Operators (Sometimes reduced to one).
Two MIEMSS Emergency Medical Resource Center (EMRC) Operators

1. MIEMSS Personnel: The duties of the Syscom Operators include receiving and entering medevac requests into the prescribed database and notifying receiving hospitals of aircraft estimated time of arrival (ETA). The EMRC Operators provide communications patching between the receiving medical centers and responding aircraft, as well as to ambulance units in Region 5 (Washington, D.C. metropolitan area); and Region 3 (Baltimore metropolitan area). MIEMSS personnel also conduct duties related to hospital status tracking, special medical resources, mass casualty reporting, and other medical planning and response information management. A MIEMSS Supervisor, holding authority in matters pertaining to MIEMSS personnel and operations is normally present at one of the four MIEMSS operator positions.

2. The MSP SYSCOM Duty Officer (SDO) is assigned to the MSP Aviation Command, is supervised by the MSP Flight Operations Officer and normally holds a supervisory rank. The SDO is the frontline fleet manager who coordinates aircraft operations and applies multiple resources as required to accomplish the missions of the MSP Aviation Command. The SDO serves as a primary representative of the MSP

Aviation Commander, having immense responsibility for decision making, command, control, communications and safety. The SDO makes timely decisions based on sometimes limited information.

3. Selection of SDO Personnel: Recruitment and training of SDO personnel is a critical task in the operational success of the MSP Aviation Command. Likely candidates will have diverse experience in law enforcement, aviation, emergency medical services, risk management, emergency operations, emergency communications, and personnel supervision. It is also vital that SDO personnel have solid interpersonal skills, good judgment, keen perception, ability to analyze and prioritize tasks, ability to make decisions, and the wisdom to seek further assistance or guidance when a matter is beyond the scope of one's own authority.

4. Assignment of SDO Personnel: Syscom will be supported by both *permanent* and *auxiliary* SDO personnel. Personnel assigned to other positions within the MSP Aviation Command will be selected, trained, and routinely assigned to work SDO shifts so as to balance the workload and scheduling needs within the operation. Ideally, personnel will transition into other assignments within the MSP Aviation Command by beginning as a permanent SDO. This will help to build a solid operational experience base within the organization. Once otherwise assigned, these personnel will remain a vital resource in the operational success of the MSP Aviation Command. The permanent SDO assignment must be occasionally varied with other roles. It is recognized, due to inherent stress that the permanent, long term assignment of an employee solely to Syscom beyond two or three years may lead to burnout and associated health risks. All employees must actively pursue good health and wellness. Personnel are encouraged to remain involved in the practical aspects of their profession as a law enforcement officer, paramedic, or pilot as they continue with effective pursuit of personal and professional development.

5. SDO Currency: Qualified auxiliary SDO personnel should expect to work at least two shifts per month in addition to their regular duties. Each qualified SDO must work at least one shift within a two calendar month period to remain current, otherwise retraining will be required. (See Syscom training requirements).

B. AUTHORITY

Routine and emergency decision making processes are conducted in accordance with the following resources and considerations:

Medical Protocols of MIEMSS
Federal Aviation Regulations
MDSP Administrative and Patrol Manuals
MDSP Aviation Operations Manual
MDSP Aviation Active Policy and Safety Bulletin File
MDSP Aviation Dispatch/Syscom Procedures Guide
Federal Communications Commission Regulations
Numerous federal & state laws
Memorandums of agreement or understanding

Guidance from the Commander, Flight Operations Officer, or Officer of the Day
Reasonable recommendations from Syscom Operators / MSP Crewmembers
Reasonable judgment of the SDO

C. DUTIES/RESPONSIBILITIES OF THE SDO

A comprehensive list of all duties and responsibilities would be almost endless. All actions of the SDO must focus on one guiding principle: The effective mitigation of risk in support of mission success.

The SDO is driven by safety mindedness, translating policy into practice as aircrews are given direction, guidance, and time critical information necessary for completion of all flight missions.

1. Aircraft/Crew Accountability: Te SDO is primarily responsible for the whereabouts of helicopters and crew members at all times. While the GIS Flight Tracking System, ADS-B, RightCad, or other tools may assist in this process, technical errors do not relieve the SDO of this responsibility.

2. Mission Progress Tracking: This is accomplished on all missions using RightCad software or mission tracking sheets. Once the call is entered by the call taker, the continuous updating is primarily the responsibility of the duty officer although Syscom Operators are welcomed to assist in this process.

3. Airspace Coordination: The SDO will proactively coordinate any required airspace approvals that may be required to ensure the most efficient completion of flight missions. The National Capital Region Coordination Center (NCRCC) of Hearndon, VA has representatives on duty from the FAA, US Secret Service, US Customs and various military components. The SDO will contact NCRCC on every flight mission involving operation into the Flight Restricted Zone (FRZ), Air Defense Identification Zone (ADIZ), Prohibited Areas (ie. P40), or areas of Temporary Flight Restriction (TFR) related to presidential transport. This notification is required to complete missions without interruption and is related to national defense. Contact for entrance into Restricted Areas (ie R-4001) will be made with the "controlling agency" listed on the tablature of FAA Sectional or Terminal Charts, unless a Memorandum of Understanding has been otherwise established, in such case, the MOU will be followed.

4. Section Status Monitoring: Upon receiving notification from aircrews, maintenance section, or the flight operations officer, the SDO will use the "Section Down Time" database to track the operational status of each helicopter section with the following criteria:

DOWN WEATHER - Reported WX is below minimums (600-2 day; 800-3 night).
CALL BY CALL - Reported/Observed WX is close to minimums.
DOWN MAINTENANCE – Section not available due to maintenance.
DOWN CREW – Unexpected period without staffing (Not 0300-0700 hrs at T5 & T7).

5. Weather: Pilots are required to monitor weather and Notice to Airman (NOTAM)

reports that may effect operations. Dynamic conditions do not always enable aircrew reference immediately prior to an assigned mission, especially if already airborne on a prior mission. The SDO will assist pilots in monitoring weather. In addition to receiving Section Readiness Status updates from the aircrews, the DO will obtain a statewide weather forecast at the beginning of each duty shift, and should update as necessary. The National Weather Service updates forecasts at 0000, 0600, 1200, 1800 Zulu Time.

Weather: Internet sites:

http://adds.aviationweather.noaa.gov
www.insidebaltimore.com
www.duat.com (requires password)

A DigiWx monitoring station has been installed on the Shock Trauma Helipad (University of Maryland) and provides real time weather observation to the SDO workstation by reference to the handheld monitor device or internet monitoring at:

www.digiwx-stc.com

Recorded Automated Surface or Weather Observation Systems (ASOS / AWOS)

Martin State	MTN	410-682-8848	AWOS III
Baltimore	BWI	410-691-1278	ASOS
Cambridge	CGE	410-228-7559	AWOS III
College Park	CGS	301-864-5497	AWOS III
Cumberland	CBE	304-738-0451	AWOS III
Easton	ESN	410-822-2817	AWOS III
Frederick	FDK	301-694-1457	AWOS III
Gaithersburg	GAI	301-977-2971	AWOS III
Hagerstown	HGR	301-745-3497	ASOS
Oakland	2G4	301-746-8443	AWOS III
Ocean City	OXB	410-213-1530	ASOS
Ridgely	RJD	410-634-1072	AWOS III
Salisbury	SBY	410-341-0868	ASOS
Stevensville	W29	410-643-8795	AWOS III
Westminster	DMW	410-876-1281	AWOS III

6. Radio Transmissions: All Syscom personnel will be expected to answer the radio, however, it is not within the scope of this SOP to establish a specific precedent for when this duty will be carried out by each employee. Principles of Crew Resource Management and interagency cooperation are vital in sharing this workload. Personnel are encouraged to request and to offer such assistance when it appears that the operational workload is increasing. All transmissions are logged by digital recording.

7. Answering phone lines: Incoming MSP lines are 410-783-7525 and 7526, these should normally be answered by the SDO. Additionally, the 800-648-3001 lines are often used by sections to contact Syscom. When it is reasonably known that the incoming call is for the SDO, the SDO should make every effort to answer these lines so as to avoid unnecessary delay in processing of the call. The incoming helicopter request lines are 410-706-8080/81/82 & 800-468-5090 these lines are normally answered by MIEMSS personnel but the SDO should offer assistance to answer these lines during peak periods.

8. Dispatch Role: While incoming dispatch phone lines are primarily answered by SYSCOM operators, the SDO will use the "monitor button" to monitor the call and obtain dispatch information without disturbing the conversation. The MSP SYSCOM duty officer is primarily responsible for selecting and assigning all missions to MSP and civilian EMS helicopters. When a request pertains to a search or police mission, if operationally feasible, MIEMSS personnel should turn the call over to the SDO who will then receive all information directly from the requestor. At times the mission may involve a police sensitive matter requiring confidentiality. The SDO is authorized to use the "private" call feature in such instances. This is not intended to slight MIEMSS personnel, but is based on operational necessity. The Duty Officer will notify the appropriate section of the medevac, SAR or police mission, providing the County, Town or City, Map Page, latitude & longitude, nature of the call, and address of the landing zone.

9. Proximity of the SDO: It is understood that the MSP SYSCOM Duty Officer cannot remain at the console at all times. An acceptable reason for not being at the console would include a short break for physiological needs. If possible, such breaks will not be initiated while an MSP aircraft is flying. Before leaving the console for any reason, the MSP SYSCOM duty officer will brief the SYSCOM staff of ongoing aircraft activities. There is no entitlement to a predetermined lunch or dinner break. Eating of meals at the console is discouraged due to risk of spillage. This poses a recognizable conflict even though reasonable meals are necessary for personal wellness and health. Again, effective crew resource management is vital.

10. Update aircraft ETA: It is critical that the SDO and SYSCOM operators be aware of the helicopter's ETA during all phases of a medical mission.

11. Police / Homeland Security Monitoring: The MSP Duty Officer will monitor television or internet news reporting services and keep the command staff informed of significant statewide or national emergency events. The various intelligence reports issued through Maryland Coordination and Analysis Center (MCAC) will also be reviewed daily to determine situations relevant to the Aviation Command.

12. WEBEOC participation: The Maryland Emergency Management Agency has implemented a web based Emergency Operations Center (WEBEOC) in order to facilitate interagency coordination throughout the state. MSP Duty Officers will logon as MSP Aviation during all emergency situations and may optionally logon every shift.

There are separate logons for SYSCOM and MIEMSS. Training for WEBEOC will be provided by the MSP Aviation Command Homeland Security Coordinator or directly through MEMA

13. Non-Routine Reporting Requirements: While it is impossible to list every incident that must be brought to the attention of the Aviation Command Officer of the Day, examples of the types of incidents that would require notification include:

a. Any on-duty injury to command personnel.

b. Any off-duty injury serious enough to require the use of sick leave.

c. Any significant loss or damage to Agency issued equipment.

d. Any emergency or precautionary landing of command aircraft.

e. Any significant complaint filed against command personnel.

f. Shutting down a section for any reason other than for weather.

g. Any involvement while on crew-status or otherwise that might be termed unusual or noteworthy. Generally speaking, this would include any incident that might result in having inquiries directed to the command staff by MSP Pikesville, the news media, or other significant parties.

h. Any information that in the opinion of the duty officer that should be brought to the attention of the command staff.

14. Routine Written Reporting Requirements:

a. Reports on Day Shift: 1. Update the Daily Assignment Sheet as crews call in. Fax to all sections after all crews have checked in. 2. Complete the Day Shift portion of the Daily Operations Report. Save the file.

b. Reports on Night Shift: 1. Complete the Daily Operations Report and email the completed document prior to 0600 hours. Recipients will include all MSP Aviation Sections, Command Staff and MSP Headquarters at Pikesville. Specific report information for MSP Headquarters will also be tallied on the Daily Operations Report. 2. Complete the Daily Totals Report using the RightCad RescueNet reporting feature. These are saved as an htm File. This will be emailed concurrently with the Daily Ops Report.

15. Shift Change Briefing - The incoming duty officer will receive a full briefing to include the location and status of each aircraft/ crew, on-going or pending missions, NCRCC notifications, manpower shortages, and any unusual incident that might be of interest to the next shift.

16. MDSP Data Management System: www.mdsp.info provides for the accounting of all Trooper activity. This system will be used to enter all work related activity not accounted for in RightCad.

17. Paging System - Timely notification to appropriate personnel will sometimes enhance the safety and efficiency of the operation. The duty officer should make use of the PageNet System to disseminate critical information quickly. Department personnel should not expect Syscom to page for convenience sake.

D. DISPATCH CONSIDERATIONS -

1. Go/No Go Decisions: The SDO will have ultimate authority in the dispatch of missions to aircraft sections. The pilot in command has ultimate authority in the safe operation of the aircraft and utilizes crew resource management principles in executing this authority. Decisions to not to fly based on weather or other safety matters will be made by the flight crews. No one will force a crew to take a mission they feel is unsafe. Flight crews who disagree with the duty officer will complete and forward a detailed report through the chain of command to flight operations for disposition. They will be kept informed of the review and disposition. METAR Records are maintained at the aircraft section, for any flights which are denied because of weather. When weather is down or call by call, and Duty Officers call the section inquiring of their ability to conduct a particular mission, the crews WILL NOT construe this as pressure to conduct the mission.

2. Aircraft Availability - MSP SYSCOM duty officer will strive to send the closest aircraft to life threatening and serious medical situations. For less urgent situations consideration of "Flight Restriction Status" will be made before dispatching an aircraft. "Flight Restriction" is applied by the Flight Operations Director, or Officer of the Day at the request of maintenance, due to mandatory inspections that cannot be overflown or other urgent maintenance/safety matters.

3. After receiving a request for aircraft dispatch, the MSP SYSCOM duty officer must decide if the mission requires (1) immediate dispatch, (2) non-immediate dispatch or (3) denial of dispatch. The following definitions apply:

a. Immediate Dispatch- The immediate response of the appropriate MSP aircraft is necessary to successfully complete the mission. Generally, all medevacs and potentially life-threatening searches and/or rescues are of this mission type. In addition, some police missions that are not potentially life-threatening require immediate dispatch to ensure a successful conclusion.

b. Delayed Dispatch- The delay in dispatching an aircraft will not compromise the mission significantly. The need to operate in the most cost effective manner outweighs the inconvenience to the requesting agency. Photo missions, training missions, survey and traffic missions, personnel transports, pollution monitoring

missions and other similar missions are examples of delayed dispatch missions. Wherever possible, the SYSCOM Duty Officer should refer such missions to the MSP Fixed Wing Section: Trooper9@mdsp.org and 410-238-5862.

c. Denial of Dispatch- If the MSP SYSCOM duty officer determines that the mission is not within the mission parameters of the MSP Aviation Command, the requestor will be advised of this. Whenever the duty officer determines that a requested mission is outside established protocols but the mission needs further review, he will contact the officer of the day.

4. Distance out of State: Medevac Missions are authorized as far as 30 nautical miles from the Maryland border. It is appropriate to ask requestors from neighboring states why their own flight agency is not responding. An answer such as "they are down for weather" should immediately alert the SDO that the flight might not be any safer for one of our aircraft, although localized weather patterns may be a factor worth consideration.

5. Police Mission Approvals: Wide latitude is given to the MSP Duty Officer in the authorization of police missions, priority shall be given to the protection of life, or mitigation of dangerous situations for citizens and emergency personnel. This is especially important when considering dispatch up to 30NM from Maryland's borders.

E. OTHER MANAGEMENT MATTERS -

1. Tour of Duty: The MSP SYSCOM duty officer's tour of duty will be assigned by the commander. A 12 hour workday has evolved as a pilot project in the interest of bringing better balance to employees. Maximum efficiency and performance are expected of all SDO personnel.

2. Crew Resource Management (CRM):

Syscom will function under Crew Resource Management (CRM) principles during all operations within the communications center and when interacting with aircrews whether in the aircrews are actually in flight or not.

Crew Resource Management is a process designed to aid in the prevention of aircraft accidents and incidents by improving crew performance through a better understanding of human factor concepts. CRM involves effective communications and demonstrates understanding of how the attitudes and behaviors of flight crew and dispatch center personnel impact the safety of the operation.

The Syscom Crew Resource Management Training Program will be based upon the USAF ATC Training Series Module AT-M-06A and will include all MSP Duty Officers and Syscom Operators upon initial hiring.

This training should be conducted through a formal guided discussion method in the initial training, while self paced tutorials may be appropriate for refresher training.

Simultaneous training of helicopter crews and communications personnel is encouraged as long as the specific needs of both groups are achieved.

The following crew resource management topics and their relation to MSP aviation operations and EMS Communications must be trained:

a. Situational Awareness
b. Effective Communications
c. Risk Management
d. Mission Planning
e. Group Dynamics
f. Human Factors
g. Workload Management
h. Stress Awareness
i. Decision Making

THE SDO will continuously consult with the MIEMSS Syscom Operators. Information exchanged will include aircraft locations, specialty referral centers on fly-by, scheduled or pending missions for that shift, and unusual or news worthy missions/incidents. (If a mission is law enforcement sensitive (ie. Warrant Service) specific information such as address and city should be kept confidential between MSP personnel however, identification of a particular aircraft for a mission should be communicated with MIEMSS personnel to enable complete situational awareness and operational capability.

In the rare event that an MSP-MIEMSS supervisory consensus is not reached regarding any matter during a watch, the SDO will notify the MSP Flight Operations Officer, Officer of the Day, or Commander as appropriate. MIEMSS Personnel would likewise be expected to make notifications through their own chain of command. Further resolution may then be sought by informal discussion or formal scheduled conference between the appropriate personnel in positions of leadership. In all situations, the needs of the patient and support of public safety must be the highest priority. Procedures and policies can be reviewed after the completion of the mission.

G. SYSCOM DUTY OFFICER TRAINING PROGRAM

This training program will be continuously developed in order to stay ahead of emerging technologies, safety policies and new trends. The Flight Operations Officer has the responsibility for ensuring the effective training of new SDO's but may delegate the training tasks to senior personnel otherwise assigned to Syscom.

The training program will be based upon FAA ORDER 8004.10 Chapter 3 - Dispatcher Training, and guidelines of the Airborne Law Enforcement Association (ALEA) and the National Association of Air Medical Communication Specialists.

1. Definitions-
   a. *New Hire Training*: Personnel not previously assigned to Aviation Command

b. *Transition Training*: Personnel previously assigned to Aviation Command
c. *Recurrent Training*: Personnel who have not conducted a SDO shift in 2 months.
d. *Requalification Training*: Personnel who have not conducted a shift 6 months.

The Following curriculum elements are required in each category:

Curriculum	Initial	Transition	Recurrent	Requal
MISSION	X			
FACILITIES	X			
AIRCRAFT	X			
Resources	X	X	X	X
Navigation	X	X		X
Communication	X	X		X
Public Safety Mgmnt	X	X		X
Mission Mgmnt	X	X		X
Aircraft Tracking	X	X		X
QUALITY CONTROL	X	X	X	X
WEATHER	X			X
OPS MANUAL	X	X		X
CRM	X			
RISK MGMNT	X			X

Resources:

Navigation:
a. MSP-MIEMSS DOS Navigation Program
b. SAIC Windows Flight Following Software
c. Streets & Trips Software
d. ADC Mapping Systems
e. Maryland Emergency Geographic Information Network (MEGIN).
f. FAA Sectional / Terminal Charts
g. Latitude & Longitude conversion principles
h. Geographic Information Systems (GIS)

Communication:
a. Motorola Communications Console
b. PageNet dialup and web based paging system
c. SIEMENS Telephone System
e. http://mail.miemss.org/exchange/
d. www.mdsp.org/webmail

Public Safety Management:
a. www.mdsp.info
b. https://webeoc.mema.state.md.us (WEB EOC System)
c. www.chart.state.md.us (Maryland Highway Conditions)

Mission Management & Aircraft Tracking:
a. RightCad
b. Automatic Dependent Surveillance - Broadcast (ADS-B)
c. Other flight following systems.
d. Weather updating methods

Quality Control:
a. Microsoft Access Database: NewQARreport"
b. SectionDownTimeTracking"