

Docket No. SA-530

Exhibit No. 7-B

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

Commission on Accreditation of Medical Transport Systems
(CAMTS) Accreditation Standards 7th Edition 2006
06.00.00 Communications Section

(9 Pages)

GENERAL STANDARDS
Communications Section

Communications Equipment
05.04.00 – 06.02.01

05.04.02	Which personnel are responsible for checking and ensuring the aircraft is ready for patient transports before the aircraft is put into service.	RW/FW
05.04.03	Realistic time frame to perform a maintenance check before the aircraft is put into service.	
05.05.00	A fire extinguisher must be accessible to medical transport personnel and pilot(s) or driver while in motion.	RW/FW/G
05.06.00	"No smoking" signs are prominently displayed inside the cabin or ambulance.	RW/FW/G
05.07.00	The interior of the aircraft or ambulance should be climate controlled.	RW/FW/G
05.07.01	If air conditioning or heat is not available, policy will address what type of patients cannot be transported during extreme temperatures as defined by the program and what measures are taken to avoid adverse affects on patients and personnel on board.	
05.07.02	There is evidence of tracking requests that were denied (in the QM process) due to lack of air conditioning or heating in extreme temperatures.	
06.00.00 COMMUNICATIONS SECTION		
06.01.00	The FAA Part 135 certificate holder has the responsibility and authority to make all flight release decisions.	RW/FW
06.01.01	The certificate holder must have procedures established for locating each flight for which an FAA flight plan is not filed. (See References FAA Part 135.79 – Flight locating requirements)	
06.02.00	Communications equipment on the aircraft and ambulance.	RW/FW/G
06.02.01	All communications equipment must be maintained in full operating condition and in good repair. Ambulance communications equipment must be capable of transmitting and receiving clear and understandable voice communications to and from the base station at a reasonable distance. Radios on aircraft and ambulances (as range permits) should be capable of transmitting and receiving the following: <ol style="list-style-type: none"> 1. Medical direction. 2. Communications center. 3. Air traffic control (aircraft). 4. EMS and law enforcement agencies. 	RW/FW/G

GENERAL STANDARDS
Communications Section

Education and Training
06.02.02 – 06.03.01

06.02.02	Pilot is able to control and override radio transmissions from the cockpit in the event of an emergency situation.	RW/FW
06.02.03	Medical team must be able to communicate with each other during flight. Helmets with communications capabilities are required on RW.	RW/FW
06.02.04	<p>If cellular phones are part of the on-board communications equipment, they are to be used in accordance with FCC regulations. <i>(See References in Appendix)</i></p> <ol style="list-style-type: none"> 1. For aircraft, cellular phones must be shut off whenever the aircraft leaves the ground, and the notice according to FCC regulations should be posted in the aircraft: Ground providers whose medical director(s) has established the requirement for transmission of biomedical telemetry may utilize the cellular telephone system for such communications. Other communications equipment such as cellular phones are in addition to and not in place of the radio equipment and should not be used in the presence of pacemakers or other equipment sensitive to interference. 2. Policy limits drivers' use of cellular phones and other communication devices while driving except for vital communications. 	RW/FW/G
06.03.00	A Communication Specialist must be assigned to receive and coordinate all requests for the medical transport service.	RW/FW/G
06.03.01	<p>Staffing</p> <ol style="list-style-type: none"> I. Scheduling and individual work schedules demonstrate strategies to minimize duty-time, fatigue, length of shift, number of shifts per week and day-to-night rotation. <ol style="list-style-type: none"> a. Call volume and other required duties are considerations in the number of communication specialists on duty at any one time. (Programs should be able to demonstrate how they assess staffing levels – for example number of Units of Service relevant to FTEs relevant to the number of Communications Specialists on duty in a 24 hour period.) b. There are relief personnel (with the appropriate training) available for periodic breaks. c. On-site shifts scheduled for a period not to exceed 24 hours. Twenty-four hour shifts are acceptable if the service is able to demonstrate compliance with the following criteria: <ul style="list-style-type: none"> • Personnel must have at least eight hours of rest with no work-related interruptions prior to any scheduled shift of twelve hours or more. The intent is to preclude back-to-back shifts with other employment, commercial or military flying, or significant fatigue-causing activity prior to a shift. 	RW/FW/G

	GENERAL STANDARDS Communications Section	Education and Training 06.03.01 – 06.03.02
	<ul style="list-style-type: none"> • Personnel must have the right to call “time out” and be granted a reasonable rest period if a team member determines that he or she is unfit or unsafe to continue duty, no matter what the shift length. There should be no adverse personnel action or undue pressure to continue in this circumstance. • Management should monitor flight volumes and personnel’s use of the “time out” policy to ensure that medical personnel utilize the right to call “time-out.” <p>2. Communications personnel are provided with an opportunity to join wellness programs offered by the medical transport service.</p>	
06.03.02	<p>Training of the designated person should be commensurate with the scope of responsibility of the Communications Center personnel.</p> <ol style="list-style-type: none"> 1. Initial training, which must include: <ol style="list-style-type: none"> a. Medical terminology and obtaining patient information. b. Knowledge of EMS—roles and responsibilities of the various levels of training – BLS/ALS, EMT/ EMT-Paramedic. c. State and local regulations regarding EMS. d. Familiarization with equipment used in the field setting. e. Knowledge of Federal Aviation Regulations and Federal Communications Commission regulations pertinent to medical transport service. f. General safety rules and emergency procedures pertinent to medical transportation and flight following procedures. g. Navigation techniques/terminology, flight following and map skills. This should include an understanding of GPS navigation and approaches. h. Understanding weather interpretation and how to retrieve current and forecasted weather to assist the pilot during a transport. i. Types of radio frequency bands used in medical and ground EMS. j. Assistance with the hazardous materials response and recognition procedure using appropriate reference materials. 	<p>RW/FW/G</p> <p>RW/FW</p> <p>RW/FW/G</p>

GENERAL STANDARDS
Communications Section

Education and Training
06.03.02 – 06.04.02

	<p>k. Stress recognition and management to include resources for Critical Incident Stress Debriefing or other type of post critical incident counseling.</p> <p>l. Customer service/public relations/phone etiquette.</p> <p>m. Quality management.</p> <p>n. Crew Resource Management (CRM) pertinent to communications.</p> <p>o. Computer literacy and software training.</p> <p>p. Post Accident/Incident plan (PAIP).</p> <p>2. There is evidence of recurrent training and of training as policies and equipment changes occur.</p> <p>3. Certifications (such as EMT, EMD, NAACS Certified Flight Communications Course) are encouraged, and if required by position description, must be current.</p>	
06.03.03	Communications is part of the program's QM program and communications personnel participate in staff, safety and QM meetings. <i>(See page 45 for specific QM criteria for Communications Centers.)</i>	RW/FW/G
06.03.04	<p>There are shift briefings conducted at the beginning of each shift to assure continuity between shifts.</p> <p>A post flight mission debrief is conducted after each flight that includes the communications specialist.</p>	RW/FW/G RW/FW
06.03.05	Formal periodic meetings (separately held or part of the program's staff meetings) are strongly encouraged for which minutes are kept on file. Minutes will include who is presiding, discussion and who was present. There are defined methods, such as a communications book for disseminating minutes and information between meetings.	RW/FW/G
06.04.00	Written communications policies to reflect:	
06.04.01	There is a written policy that at the time of a request, the pilot is not informed of the patient condition or age unless there are operational considerations (for example: weight, extra equipment etc.).	RW
06.04.02	<p>A readily accessible post accident/incident plan must be part of the flight following protocol so that appropriate search and rescue efforts may be initiated in the event the aircraft or ground ambulance is overdue, radio communications can not be established nor location verified. There should be a written plan to initiate assistance in the event the ambulance is disabled.</p> <p>1. Post accident/incident plans are easily identified, readily available, and understood by all program personnel and minimally include:</p> <p>a. List of personnel (with current phone numbers) to notify in order of priority (for</p>	RW/FW/G

	communication specialist to activate) in the event of a program incident/accident (for air	
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**GENERAL STANDARDS
Communications Section**

Education and Training
06.04.02 – 06.05.00

	<p>or ground). This list should minimally include sponsoring organization individuals where applicable, risk management attorney, family members of team members, family of patient, referring hospital, receiving hospital, security (as applicable), human resources (as applicable), media relations or pre-identified individual who will be responsible for communicating with the media, state health department and other team members.</p> <p>b. Consecutive guidelines to follow in attempts to:</p> <ul style="list-style-type: none"> • Communicate with the aircraft or ambulance • Initiate search and rescue or ground support. • Have a back-up plan for transporting the ground ambulance patient in the event of an incident or accident and/or the ambulance is inoperable. • Have an aviation individual identified as the scene coordinator to coordinate activities at the crash site. <p>c. Preplanned time frame to activate the post accident/incident for overdue aircraft or ambulance.</p> <p>d. A method to insure accurate information dissemination.</p> <p>e. Coordination of transport of injured team members.</p> <p>f. Procedure to document all notifications, calls, communications and to secure all documents and tape recordings related to the particular incident/accident.</p> <p>g. Procedure to deal with releasing information to the press.</p> <p>h. Resources available for CISD or other counseling alternatives.</p> <p>i. Process to determine whether the program and/or component of the program (RW/FW/G/ME) will remain in service. If it is determined that the program or a component of the program will go out of service - other regional transport services, primary customers, EMS, public service groups and other applicable groups are advised.</p> <p>2. An annual drill is conducted to exercise the post incident/accident plan. This drill should include pilots, medical personnel, communications personnel, mechanics and administrative personnel. Written debriefing and critique of PAIP drills should be shared with all staff members.</p> <p>3. A general test of all emergency procedures to include fire drill, intruder on premises, catastrophic failure of the communications center, helipad mishaps, forces of nature etc. will also be conducted on an annual basis.</p>	RW/FW/G
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06.05.00	Initial coordination must be documented and continuous flight following (or initiating and	RW/FW/G
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	following ground transport) must be monitored and documented and should consist of the following: <i>(See References for explanation of transport times below)</i>	
GENERAL STANDARDS Communications Section		Initial Coordination 06.05.01 – 06.05.01
06.05.01	<p><u>Initial coordination</u> to include communication and documentation of:</p> <ol style="list-style-type: none"> 1. Time of call. (Time request/inquiry received) 2. Name and phone number of requesting agency. 3. Age, diagnosis or mechanism of injury. 4. Referring and receiving physician and facilities (for interfacility requests) as per policy of the medical transport service. 5. Verification of acceptance of patient and verification of bed availability by referring physician and facility. 6. Destination airport, refueling stops (if necessary) location of transportation exchange and hours of operation. 7. Weather checks prior to departure and during mission as needed. 8. Previous turn-downs of the mission (i.e. helicopter shopping) 9. Ground transportation coordination at sending and receiving areas. 10. Time of Dispatch <i>(Time medical personnel notified flight is a go, post pilot OK's flight)</i> 11. Time Depart Base <i>(Time of lift-off from base or other site.)</i> 12. Number and names of persons on board. 13. Amount of fuel on board. 14. Estimated time of arrival (ETA). 15. Pertinent LZ information. 16. Time Arrive Location <i>(Time aircraft/ambulance arrives at landing zone or helipad)</i> 17. Time Depart Location <i>(Time aircraft/ambulance lifts off from landing zone or helipad)</i> 18. Time Arrive Destination <i>(Time patient transferred to receiving clinical team – in unusual circumstances, this may not be at a healthcare facility.)</i> 19. Time Depart Destination <i>(Time left patient destination. Will be recorded for transports not ending at base).</i> 	<p>RW/FW/G</p> <p>RW/FW</p> <p>RW/FW/G</p>

GENERAL STANDARDS Communications Section		Initial Coordination 06.05.01 – 06.05.03
	20. Time Arrive Base <i>(Time arrive base after call completed)</i> 21. Time Aborted <i>(Time authorized transport aborted/cancelled after dispatch)</i>	RW/FW/G
06.05.02	Concluding documentation (which is pertinent to RW but can also be useful for FW and G services) may include calculation of: <ol style="list-style-type: none"> 1. Response Time <i>(Time interval between Time of Dispatch and Arrive Location)</i> 2. Ground Time <i>(Time interval between Time Arrive Location and Time Depart Location)</i> 3. Transport Time <i>(Time from Time Depart Location to Time Arrive Location)</i> 4. Total Mission Time <i>(Time interval between Time of Dispatch and Time Arrive Base)</i> 	RW
06.05.03	Additional Criteria for Fixed Wing—Operations should be conducted using VFR flight plans minimally and IFR flight plans whenever feasible. <ol style="list-style-type: none"> 1. Procedures ensure that pilots use ATC radar and/or communications services whenever operating under VFR and within the service area of an ATC facility or a communications service. 2. In addition to IFR flight plans, there are procedures to notify the communications center of the specific aircraft departure time, estimated time of arrival and arrival at the scheduled destination. 3. For a fixed wing service that flies only pre-scheduled flights, an answering service may serve as the receiving point for requests for service. <ol style="list-style-type: none"> a. Answering service personnel must be trained to obtain specific information when receiving a request to schedule fixed wing patient transportation. b. The items should include but not be limited to: <ul style="list-style-type: none"> • Name and telephone number of caller • Patient type/condition • Date and time call received • Anticipated or scheduled date/time of departure • Location of patient and destination c. Specific methods must be used by the answering service for contacting the medical service coordinator (or designee) to relay request information, i.e. pager numbers, 	FW

		telephone and/or cellular numbers.	
GENERAL STANDARDS		Flight Following	
Communications Section		06.05.03 – 06.05.04	
06.05.03	<p>d. Guidelines of timely notification (less than thirty [30] minutes) should be established. Alternate procedures for notification must be in place in case the coordinator is not available to receive the request/information.</p> <p>e. An on-call roster of the medical team must be provided to the answering service. The roster includes a priority phone list of personnel to notify in the event of an emergency.</p>	FW	
06.05.04	<p><u>Flight Following and Communications During a Mission</u>—The medical transport service should provide direct communication capabilities for parties involved in the transport, i.e., medical personnel, ground ambulance providers, to ensure rapid dissemination of information, coordination of efforts and problem solving. In each case, direct contact between the parties should be established whenever possible as follows:</p> <ol style="list-style-type: none"> 1. Direct or relayed communications to communications center (while in motion) specifying locations and ETAs, and deviations, if necessary. <ol style="list-style-type: none"> a. A sterile cockpit is maintained below predetermined altitudes so that the pilot is able to transmit and receive vital information and to minimize distractions during any critical phase of flight. No external communications are permitted by the medical team and no patient information is transmitted at this time unless radios for medical report are isolated. b. There is a policy/procedure for diversions from original destinations (airports, hospital landing sites, alternative scene LZs). 2. There is a written policy that addresses direct or relayed communications to the communications center to specify all takeoff and arrival times. 3. Time between each communication. <ol style="list-style-type: none"> a. Time between each communication should not exceed 15 minutes while in flight unless a system of continuous automatic position tracking is utilized. b. There is a policy to address continuous automatic position tracking, if utilized, to ensure there are also verbal communications at predetermined times. c. If an IFR or VFR flight plan has <u>not</u> been filed, time between communications should not exceed 15 minutes if a means to communicate, directly or indirectly, is available. d. Time between communications should not exceed 45 minutes while on the ground. e. Alternate agencies are used to relay communications when direct contact is not possible. 4. There is a written policy that while the aircraft is on a mission, a communicator assigned to flight follow will be present in the communications center at all times. 	RW/FW/G	
		RW/FW	
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GENERAL STANDARDS
Communications Section

Equipment
06.06.00 – 07.01.01

06.06.00	The Communications Center must contain the following:	
06.06.01	At least one dedicated phone line for the medical transport service.	RW/FW/G
06.06.02	A method to keep noise and other distractions (traffic) from the communications area while the communications specialist is involved with a medical transport mission.	RW/FW/G
06.06.03	A system for recording all incoming and outgoing telephone and radio transmissions with time recording and playback capabilities. Recordings to be kept for a minimum of 90 days.	RW/G
06.06.04	Capability to immediately notify the medical transport team and on-line medical direction (through radio, pager, telephone, etc.)	RW/FW/G
06.06.05	An evacuation plan which provides for continuous communications with transport personnel in the event there is a need to evacuate the communications center.	RW/FW/G
06.06.06	Backup emergency power source for communications equipment, or a policy delineating methods for maintaining communications during power outages and in disaster situations.	RW/FW/G
06.06.07	A status display with information about pre-scheduled flights/patient transports, the medical transport team on duty, weather and maintenance status.	RW/FW/G
06.05.08	Current local aircraft service area maps and navigation charts must be available for aviation operations. Mapping software could supplement current charts. Road maps must be available for ground transports services.	RW/FW/G
06.06.09	Communications policy and procedures manual (that includes 11.01.07 for RW).	RW/FW/G
06.06.10	Seating and workstations that are ergonomically appropriate are provided for each communications specialist on duty.	RW/FW/G

MANAGEMENT AND ADMINISTRATION SECTION

07.00.00 MANAGEMENT / POLICIES

07.01.00	Management demonstrates a commitment to the medical transport service with the highest degree of safety.	RW/FW/G
07.01.01	Management is responsible for a Safety Management System (<i>See References in Appendix</i>) but management and staff is responsible for making operations safer. <ul style="list-style-type: none"> 1. The Safety Management System is proactive in identifying risks and eliminating injuries to personnel and patients and damage to equipment. 2. A Safety Management System includes: <ul style="list-style-type: none"> a. A statement of policy commitment from the accountable executive. 	RW/FW/G