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Standard Guide for Emergency Medical Services System (EMSS) Telecommunications¹

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1. Scope

- 1.1 This guide covers telecommunications practices and performance standards required to support all of the functions of community EMSS on a statewide basis. It defines state planning goals and objectives for EMSS communications.
- 1.2 This guide is for planning, coordinating, integrating, and evaluating telecommunications resources statewide to satisfy the functional needs of comprehensive community EMSS systems.
- 1.3 To facilitate a two-tiered planning approach recommended for EMSS communications, this guide identifies those communications system features that should be coordinated on a statewide basis and defined in statewide (first tier) EMSS communications planning guidelines. Local (second tier) EMSS communications plans prepared in accordance with the statewide guidelines should then be tailored to satisfy local EMSS needs while providing compatibility and interoperability of communications with other EMSS.
- 1.4 The sections in this guide appear in the following sequence:

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- 1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*
- 1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

- 2.1 *ASTM Standards:*²
- F1031 Practice for Training the Emergency Medical Technician (Basic)
 - F1149 Practice for Qualifications, Responsibilities, and Authority of Individuals and Institutions Providing Medical Direction of Emergency Medical Services
 - F1221 Guide for Interagency Information Exchange

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

F1229 Guide for Qualification and Training of EMS Air Medical Patient Care Providers

F1254 Practice for Performance of Prehospital Manual Defibrillation (Withdrawn 2007)³

F1258 Practice for Emergency Medical Dispatch

F1287 Guide for Scope of Performance of First Responders Who Provide Emergency Medical Care

F1381 Guide for Planning and Developing 9-1-1 Enhanced Telephone Systems (Withdrawn 2008)³

F1418 Guide for Training the Emergency Medical Technician (Basic) in Roles and Responsibilities (Withdrawn 2007)³

F1453 Guide for Training and Evaluation of First Responders Who Provide Emergency Medical Care

F1517 Guide for Scope of Performance of Emergency Medical Services Ambulance Operators

F1552 Practice for Training Instructor Qualification and Certification Eligibility of Emergency Medical Dispatchers

F1560 Practice for Emergency Medical Dispatch Management

2.2 Federal Standards:⁴

Communications Act of 1934 (47 U.S.C. 405) (as amended)
Title 47 United States Code of Federal Regulations (47 CFR) on Telecommunications

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *goal*—a statement of broad direction, general purpose, or intent. A goal is general and timeless and is not concerned with a specific achievement within a given time period.

3.1.2 *objective*—a statement of desired accomplishment that can be measured within a specified time frame and under determinable conditions. The attainment of an objective moves the system toward a directly related goal.

3.1.3 Communications terminology used in this guide and references are defined in **Appendix X2**, Acronyms and Glossary for EMSS Communications.

4. Summary of Guide

4.1 This guide identifies the functions and requirements of EMSS telecommunications. Observance of the state EMSS communications planning goals and objectives contained in this guide permits planning and implementation of compatible, interoperable, and reliable local EMSS communications which meet local needs while not interfering with the needs of adjoining EMSS.

4.2 EMSS communications should satisfy all of the performance goals and objectives specified by those who use it and those who are served by it. However, many constraints such as costs, politics, demographic and social preferences, existing legislation, and time, limit what can be achieved.

³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401.

5. Significance and Use

5.1 In situations in which the coordination of EMSS communications among political subdivisions affects the health and safety of the state's population, it is appropriate for state government to take a coordinating role. Statewide planning for coordinated use of radio frequencies for EMSS communications is specifically needed.

5.2 The state is the logical unit to formulate the statutory and regulatory framework for EMSS planning. State planning for area-wide EMSS communications provides authority to accomplish coordination in the use of available radio frequencies, thus promoting multiagency cooperation to best serve the public needs.

5.3 With statewide planning, communities, counties, and multicounty EMSS regions are provided with guidance to achieve the performance goals and objectives of their EMSS communications systems.

5.4 The statewide EMSS communications performance goals and objectives in Sections **10 – 15** address specific roles of state governments in EMSS communications systems planning. These performance goals and objectives should be considered by states for evaluating, planning, and implementing of acceptable EMSS communications statewide.

6. Functions and Categories of EMSS Communications

6.1 *Telecommunications Functions*—The report “Communications in Support of Emergency Medical Services,” given in Ref **(1)**,⁵ defines the following EMSS functions that require telecommunications:

6.1.1 Medical emergencies requiring EMSS response should be reported immediately to appropriate community agencies that manage and control EMSS resources and services.

6.1.2 Appropriate EMSS resources should respond to human health emergencies at any time and place.

6.1.3 Recognition of the need for and immediate response by EMSS resources to life-threatening and serious injuries and illness should be provided within a time period that will ensure the greatest saving of lives and reduction of morbidity.

6.1.4 EMSS and other health agencies and professionals should marshal their individual and collective resources (staff, equipment, supplies, and facilities) and coordinate their responses in the shortest effective time to meet individual and mass medical emergency needs.

6.1.5 Emergency medical dispatchers should have special training to provide guidance and direction to persons at the scene of a medical emergency pending arrival of trained prehospital EMSS personnel.

6.1.6 EMSS must be coordinated with other community public safety emergency response services.

6.1.7 The use of EMSS facilities (emergency departments, intensive care, and coronary care units, burn and trauma

⁵ The boldface numbers in parentheses refer to the references at the end of this guide.