Designation: F2020 – 02a (Reapproved 2009)

Standard Practice for Design, Construction, and Procurement of Emergency Medical Services Systems (EMSS) Ambulances[1]

This standard is issued under the fixed designation F2020; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice covers certified, tested, commercial type, EMSS ambulances built on chassis that are suitable for the intended application and meet the requirements herein. The ambulances are front or rear wheel driven (4x2) or four wheel driven (4x4) and warranted as specified in Section 9.

1.1.1 *Definition of Ambulance*—An ambulance is a vehicle for emergency medical care which provides: a driver's compartment; a patient compartment to accommodate an emergency medical technician (EMT)/paramedic and two litter patients (one patient located on the primary cot and a secondary patient on a folding litter located on the squad bench) so positioned that the primary patient can be given intensive life-support during transit; equipment and supplies for emergency care at the scene as well as during transport; two-way radio communication; and, when necessary, equipment for light rescue/extrication procedures. The ambulance shall be designed and constructed to afford safety, comfort, and avoid aggravation of the patient's injury or illness.

1.1.2 This practice may be used to procure an ambulance and the applicable additional systems and equipment.

1.1.3 Purchasers should follow the ordering data in 9.2 to aid them with the preparation of their procurement specification, requisition, and contract. The purpose of this practice is to describe minimum requirements for design, construction, performance, equipment, testing, and appearance of EMSS ambulances that are authorized to display the "Star of Life" symbol so as to provide a practical degree of standardization. The reasons for such standardization are to provide ambulances that are easily detected, nationally recognizable, properly constructed, easily maintained, and, when appropriately equipped, will enable Emergency Medical Technicians (EMTs) to safely and reliably perform their functions as basic and advanced prehospital life support providers as set forth in national EMSS standard training guidelines. These functions include:

1.1.3.1 Responding to, providing appropriate basic or advanced life support, on-site, to persons reported experiencing acute injury or illness in a pre-hospital setting, and transporting them, while continuing such life support care, to an appropriate medical facility for definitive care.

1.1.3.2 Providing interhospital critical transport care.

1.1.3.3 Transporting essential personnel and equipment to and from the site of a multiple medical emergency or a triage site and transporting appropriately triaged patients to designated medical facilities.

1.1.3.4 Other functions deemed appropriate by EMSS ambulance service managers and approved by designated EMSS medical directors.

1.2 *"Star of Life" Certification*—Ambulance manufacturer/contractor shall furnish the purchaser(s) citing this practice an authenticated certification and label (see 6.19) that certifies a "Star of Life" ambulance and equipment complying with this practice and applicable amendments (if any) in effect on the date of manufacture (see 7.3). Ambulance vehicles so certified may display the registered "Star of Life" symbol, as defined by the U.S. Department of Transportation (DOT) and the National Highway Traffic Safety Administration (NHTSA), see Fig. 1.

1.3 *Classification*—"Star of Life" ambulance designs included in this practice may be described in terms of their body type (I, II, or III), class of drive ("1" for two rear wheel drive or "2" for four wheel drive), and floor configuration (A for Advanced Life Support or B for Basic Life Support). Such descriptions may be used to define a variety of ambulance designs which are eligible for certification as "Star of Life" ambulances. (To specify, see 9.2.2 and 9.2.3).

NOTE 1—For optional advanced life support (ALS) applications, users should consider specifying a modular (Type I or III) ambulance. Modular ambulances provide additional space and compartmentation for cardiac monitors, drug cases, and so forth. The basic life support (BLS) configuration is standard on all types.

1.3.1 *Type I*—Conventional truck, cab-chassis with modular ambulance body (see Fig. 2).

Class	Configuration
Two rear wheel driven (4x2)	A or B
Four wheel driven (4x4)	A or B

[1] This practice is under the jurisdiction of ASTM Committee F30 on Emergency Medical Services and is the direct responsibility of Subcommittee F30.01 on EMS Equipment.

Current edition approved March 1, 2009. Published March 2009. Originally approved in 2000. Last previous edition approved in 2002 as F2020 – 02a. DOI: 10.1520/F2020-02AR09.

Copyright © ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. United States