

CAAS UPDATES ITS GROUND VEHICLE STANDARD

by Mark Van Arnam

When the US General Services Administration (GSA) stated their intention to sunset the KKKA-1822 “Federal Specification for the Star-of-Life Ambulance” specification for the year 2013, there was immediate concern throughout the EMS community. That KKK document, while never officially developed with the intent of being the national industry standard, dated back to the 1970s. In a relatively short period of time following the release of the document, various states accepted the GSA ambulance design specification in large part due to the absence of any other standard, as well as their inability to develop specifications independently. It basically became the de-facto national ambulance standard for the United States.

Following that announcement by the GSA, the National Association of State EMS Officials (NASEMSO) Board of Directors convened to consider the industry ramifications of the potential sunset of the KKK document. In a November 2012 letter to the GSA, NASEMSO requested that the GSA consider a delay in the announced cancellation until late 2015. The additional time was “essential for the states to research alternative specifications, evaluate the impact on the nearly 19,500 local EMS agencies licensed by the states, initiate rulemaking processes, and execute the often time consuming and expensive rule promulgation process.”

DEVELOPING ALTERNATIVES

NASEMSO was quick to take action to develop a plan to support the state agencies with possible alternatives for their ambulance standard requirements. As their letter was being delivered to the GSA, NASEMSO was rapidly developing an industry wide multi-disciplinary work group named the Model Rules for Ambulance Vehicle Design Project. The stated goal of this project was to “identify

technically acceptable (ambulance standard) alternatives, and to pursue industry partner consensus and feedback on the model regulatory language for state adoption related to the design of ambulances.”



Coincidentally in 2012, the National Fire Protection Association (NFPA) was developing what would become their NFPA 1917 Standard for Automotive Ambulances to be published in the following year. In addition, the American Society of Testing and Materials (ASTM) had already published their F2020 (2009) Standard Practice for Design, Construction, and Procurement of Emergency Medical Services Systems (EMSS) Ambulances. Evaluating and considering both of these standards would become part of the NASEMSO Model Rules Project agenda, as well as seeking other “technically acceptable alternatives”.

CAAS INTEREST

The Commission on Accreditation of Ambulance Services (CAAS) was established to encourage and promote quality patient care in America’s medical transportation system. This independent Commission established a comprehensive series of operating standards for the ambulance service industry. Accreditation of an EMS operation by CAAS signifies that your service has met the “gold standard,” determined by the ambulance industry to be essential in a modern emergency medical services provider.

CAAS did not have an ambulance vehicle standard when the NASEMSO Model Rules Project convened.

However, they were soon contacted by a number of organizations and stakeholders asking that they consider creating a ground vehicle standard program. The request was clear; develop a comprehensive ambulance standard for the broad spectrum of EMS that

could be accepted by state EMS agencies and utilized by both public and private providers nationwide.

CAAS convened a strategic evaluation team to consider this project and agreed in 2013 that they were willing to develop an ambulance standard to meet the industry need and increasing demand. While new to the vehicle standard business, CAAS is an ANSI Accredited Standards Developer, and was highly skilled at putting together a standards program.

CAAS-GVS PROJECT

CAAS invited a broad-based committee of leaders in the ambulance field to represent the stakeholders of the industry and function through a consensus process. This balanced standards development committee included EMS manufacturers, providers, manufacturers, Federal partners and safety experts, among others. The newly chartered Vehicle Standard Committee was charged with creating an industry consensus-based ground ambulance vehicle standard called the CAAS Ground Vehicle Standard (GVS).

Consistent with CAAS protocol, a set of guiding principles was established and applied to the Ground Ambulance Vehicle Standard project as it was developed and maintained:

- Helps ensure highest level of safety for patient, provider and community at large
- Promotes the quality of ambulance design
- Supports and enhances the quality of patient care and safe patient movement
- Incorporates performance-based design concepts
- Supports efficient emergency medical services (EMS) operations
- Inclusion of emerging relevant technologies
- Encourages analysis of cost versus benefits of standards

STARTING BLUEPRINT

As the CAAS-GVS Committee started their work, an early decision was made about the direction of the project. The objective was to develop a minimum standard for an ambulance, and not a detailed purchase specification. It was clear that most providers were aware of the specific details they wanted included on their ambulance but establishing high minimum and uniform standards in a variety of categories including safety, structural integrity, payload, performance and scores of other criteria was imperative. The CAAS-GVS standard would be a minimum standard developed by the industry's best subject matter experts that would serve as a comprehensive foundation for state regulation and individual purchaser's vehicle specifications.

It was clear to all that the GSA's KKK document was a highly developed specification that had been regularly updated and was very effective. The CAAS-GVS Committee agreed to implement most of the standards included in the most current version of KKK as a blueprint for the CAAS-GVS V1.0 standard.

There was one more component for the initial CAAS-GVS draft. Testing standards for ambulance manufacturers have been developed and maintained by the Ambulance Manufacturer's Division (AMD) for decades. These AMD standards (now named AMD Standardized Test Methods) are very technically detailed and establish minimum criteria for a variety of vehicle related categories. All AMD Standardized Test Methods were also included in that starting blueprint for the CAAS-GVS.

SAFETY A PRIORITY

As the CAAS-GVS Committee continued its standards development work, a critical federally funded ambulance safety project was preparing to release its first results. Specifically, ambulance crash testing that had been being performed by National Institute of Occupational Safety and Health was being completed. Those results were now ready to be published by the Society of Automotive Engineers as SAE best practices for ambulance safety. Consistent with the CAAS-GVS guiding principle #1, those first published SAE Ambulance Safety Standards were included as an essential part of CAAS-GVS.

CAAS-GVS V1.0

After 18 months of development, the inaugural CAAS-GVS V1.0 edition was published with an effective date of July 1, 2016. This standard was created with the input and efforts of over 100 EMS providers, regulators, manufacturers and other SME's, as well as going through two very responsive industry public comment periods.

In addition to the technical contents of this new minimum standard, CAAS-GVS implemented a Final Stage Manufacturer (FSAM) registration process and vehicle certification package program. Ambulance manufacturers that are registered with CAAS-GVS are required to supply a vehicle label and informational documents that verify the CAAS-GVS certification and compliance of the vehicle to the standard. Purchasers of CAAS-GVS certified vehicles will have detailed information from the FSAM verifying that the builder has met the minimum requirements of the standard and have certified the vehicle accordingly, as well as some vehicle specific critical documentation. 19 FSAM's are currently registered with CAAS-GVS and authorized to certify vehicles to the standard.

OBJECTIVE – REMOUNTS

As the GVS V1.0 project was finalizing, plans for the V2.0 version were being made. The CAAS-GVS is on a three-year revision cycle, and CAAS had two major objectives for the upcoming 2019 version.

First, the document would include updates and edits from the prior edition. This would include some new minimum safety features, as well as inclusion of the remainder of the NIOSH SAE Ambulance Safety Standards that had been published after the release of CAAS-GVS V1.0.


Secondly, CAAS had plans to include an Ambulance Remount Standard as a component of the upcoming CAAS-GVS V2.0. This project would prove to be a challenging one, with a variety of specialized work groups to tackle this very specific topic. The project required the inclusion of a different subset of Subject Matter Experts who had specialized experience in this field, and in many ways was more difficult than the new vehicle standard. This was due to the unique nature of the process, and the number of "moving parts" that had to be considered (see JEMS – Remounts Defined, June 2019).

Prior to the CAAS-GVS Remount Standard, there were no industry criteria for remounters or remounted ambulances (other than the federally required FMVSS standards). The new CAAS-GVS Remount Standard provides technical requirements and test criteria for remounts, as well as some credentialing requirements for remounters.

In addition, CAAS-GVS implemented a remounter registration process similar to that of their FSAM registration program, as well as a remount vehicle compliance package. It

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CERTIFIED CAAS GVS V2.0 AMBULANCE



Manufactured by:
Address:
City/State/Zip:

Chassis Year/Make/Model:
VIN:

Vehicle Type and FSAM Unit#:
Date of Manufacture:

TOTAL USABLE PAYLOAD:
*Vehicle Fully Certified to GVS STD (Y/N):

A1234567890

* Any vehicle noted above as not fully certified to standard requires FSAM to list all exceptions on Compliance Verification document.

NOTICE: Users shall not exceed the CHASSIS GVWR, GAWR or the TOTAL USABLE PAYLOAD.

THIS AMBULANCE CONFORMS TO CAAS GVS V2.0 AS NOTED ABOVE

should be noted that compliance with the CAAS-GVS Remount Standard does not recertify a vehicle to a new vehicle standard but documents the fact that the vehicle has been remounted in compliance with the Remount Standard and meets all Federal regulations. Over 31 Remounters registered with CAAS-GVS in the first 60 days of the program. They include FSAM's, independent Remounters and providers who perform their own in-house remounting.

NASEMSO SUPPORT

It has been quite a few years since that first word from the General Services Administration of a KKK cancellation and the NASEM-SO quick response. As we end 2019, the KKK specification is still in effect and being regularly maintained by the GSA.

In addition, both the CAAS-GVS and NFPA documents are active and have been adopted by many States. NASEMSO con-

tinues to participate in the development and maintenance of ambulance design standards by both CAAS and NFPA, and endorses the processes used by both organizations. When asked about the co-existence of these two standards, NASEMSO responded as follows: "Due to the diversity of the EMS community with respect to provider type, as well as the varied regulatory needs of states, NASEMSO supports the coexistence of both NFPA 1917 and CAAS GVS ambulance design standards and affirm our position that these two standards are not duplicative, but rather complementary; therefore, the acceptance of both standards is in the best interest of state EMS offices and the EMS community."

CAAS-GVS V2.0


CAAS-GVS V2.0 is now published with an effective date of July 1, 2019. The CAAS-GVS team is already planning for V3.0, which is scheduled to start development in 2021, and effective in 2022. An invitation will be made for anyone interested in participating in the project at that time.

The CAAS-GVS standard and relevant information is available at no charge on the CAAS-GVS website: www.groundvehiclestandard.org

Requests for information on CAAS-GVS can be made to Mark Van Arnam, Administrator of the CAAS-GVS Standard: mva@groundvehiclestandard.org or info@groundvehiclestandard.org.



CAAS GVS V2.0 REMOUNT STANDARD COMPLIANT



GVS
GROUND VEHICLE STANDARD
for
AMBULANCES
V2.0

Remounted by: _____
 Address: _____
 City/State/Zip: _____

Chassis Year/Make/Model: _____
 New VIN: _____
 Vehicle Type and Remounter Unit#: _____
 Date of Remount: _____

TOTAL USABLE PAYLOAD: _____

*Vehicle Fully Compliant with GVS Remount STD (Y/N): _____

A1234567890

* Any vehicle noted above as not fully compliant to standard requires Remounter to list all exceptions on **Compliance Verification document.**

NOTICE: Users shall not exceed the CHASSIS GVWR, GAWR or the TOTAL USABLE PAYLOAD.

THIS AMBULANCE CONFORMS TO CAAS GVS V2.0 REMOUNT STANDARD AS NOTED ABOVE



Commission on Accreditation of Ambulance Services

**1926 Waukegan Road, Suite 300
Glenview, Illinois 60025-1770**

caas.org • groundvehiclestandard.org