



Summary Document for GM Global Propulsion Systems (GPS) Requirements

1 Introduction

Note: Nothing in this standard supercedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Purpose. This standard is a summary of the requirements for the GM Global Propulsion System (GPS) Statement of Requirements (SOR) describing the engineering processes, tasks, events, and deliverables required of the Supplier to provide a product/commodity for the GM GPS Program(s). The SOR takes effect at the time of Supplier selection and continues through the phases of the program(s) identified in 1.2.

1.2 Applicability.

1.2.1 Phases of the Program. This SOR will apply throughout the design, development, validation, pre-production, production, and service life phases of the program(s) as described in the SOR appendices. The program(s) schedule(s) will be monitored through the Advanced Product Quality Planning (APQP) and control plan process and reviewed at meetings between representatives of GM and Supplier. Refer to all applicable programs, model years and duration for a product/commodity as described in SOR appendices.

1.3 Remarks.

1.3.1 Complete Bill of Material with Cost. The Supplier shall provide completed price breakdowns on forms GM1810 Production Tooling Cost Line-up Form, and GM1804C Piece Cost Breakdown Worksheet to the GM Buyer when the Supplier quotation is submitted.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

AIAG-IATF 16949 SAE USCAR-25

2.2 GM Standards/Specifications.

GMW3059	GMW3600	GMW14573	GMW15862
GMW3116	GMW14089	GMW15010	GMW15923
GMW3172	GMW14234	GMW15049	GMW16331

2.3 Additional References.

- CG3404 – M7 Technical Issues List (ID)
- CG4338 – Supplier Quality Statement of Requirements 1927-03, Appendix F (ID)
- Container Tracking and Design (ID)
(<https://gmweb.gm.com/sites/pkg/containertracking/SitePages/Home.aspx>)
- GM Information Security Policy and Processes (GM ISP&P) (ID)
(<https://gmweb.gm.com/iss/UserConnect/security/InfoSec/Pages/default.aspx>)
- GM Record Retention Schedule (GMRRS) (ID) (<https://gmweb.gm.com/legal/Legal/Pages/ILM.aspx>)
- GM SupplyPower (<https://gmsupplypower.covisint.com/web/portal/home>)
- Information Handling Service (IHS) Incorporated, Englewood, Colorado (www.global.ihs.com)
- International Material Data System (IMDS) (www.mdssystem.com)

- Statement of Requirements (SOR)
- Statement of Requirements (SOR) Label Subsystem Technical Specification (SSTS) Paragraphs (ID) (<https://documents.gm.com/gdm3/drl/objectId/090163bc81c374ff/chronicleId/090163bc81c374ff/format/msw8&versionLabel=CURRENT>).

2.3.1 GM Forms (ID).

- GM1700 Global Supply Chain Requirements
- GM1738 GM Packaging and Identification Requirements for Production Parts
- GM1804C Piece Cost Breakdown Worksheet
- GM1810 Production Tooling Cost Line Up Form
- GM1825 Supplier Technology Information
- GM1927 Global Supplier Quality Manual

(ID) = This information is limited to internal distribution within General Motors and shall not be distributed outside this company. Contact the GM Lead Engineer for further instructions

2.3.2 Automotive Industry Action Group (AIAG) Continuous Quality Improvement (CQI) Documents (www.aiag.org).

- CQI-9 Heat treat
- CQI-11 Plating
- CQI-12 Coating
- CQI-15 Welding
- CQI-17 Soldering
- CQI-23 Molding
- CQI-27 Casting

2.3.3 External Standards and Titles. Provided for convenience for the reader.

- AIAG-IATF 16949 Quality Management System Requirements for Automotive Production and Relevant Service Parts Organization (IATF-1)
- SAE USCAR-25 Ergonomics Specification for Electrical Connections

2.3.4 GMW Numbers and Titles. Provided for convenience for the reader.

- GMW3059 Restricted and Reportable Substances
- GMW3116 Recyclability/Recoverability
- GMW3172 General Specification for Electrical/Electronic Components - Environmental/Durability
- GMW3600 Generic Supplier Analysis/Development/Validation Process Tasks and Deliverables
- GMW14089 Label Design Criteria
- GMW14234 Ergonomics Engineering/Vendor Guidelines for New Products
- GMW14573 Global Performance Requirements for Labels
- GMW15010 Global Supplier Serviceability Requirements
- GMW15049 Key Characteristic Designation System Process
- GMW15862 Bar Code Content, Format, and Label Requirements for Part Identification, and Traceability
- GMW15923 Statement of Requirements for All Electrical and Electronic Systems and Components
- GMW16331 Identification and Branding Requirements on GM Parts

3 Requirements

3.1 Order of Precedence. The respective terms and conditions of GM Request for Quotation (RFQ) and Contract or Purchase Order are intended to be cumulative to and consistent with the provisions of the SOR. However, if there is any conflict among such terms and conditions, the following order of precedence applies:

- **First:** RFQ and Contract or Purchase Order, Terms and Conditions.
- **Second:** SOR and Appendices.
- **Third:** Other Provisions, Specifications, or Documents (if any).

3.2 Supplier Engineering Organization and Key Corporate Personnel. Supplier shall provide GM with the following key management information:

- Engineering contact(s) with management responsibility for the resources assigned to the Program(s).
- Corporate organization chart (Chairman, Chief Executive Officer (CEO), and topline management).
- Supplier single contact person for correspondence and to signoff deliverables.

3.3 Supplier Resource Plan and Program Support. Supplier shall prepare a Resource Plan that describes how the requirements of the SOR are to be achieved.

3.3.1 The Resource Plan must define how the Supplier's organization will conduct all managerial functions (including engineering, program management, records management, general administration, and the supporting organization chart) that are necessary to assure timely completion of all SOR requirements.

3.3.2 The Resource Plan shall include a list of all resources allocated to the Program(s), a timing plan for when resources will be brought onto the Program and fully trained, and where they will be physically located.

3.3.3 The list shall be organized according to professional discipline with their function specified, name, phone number, and percent allocation to the program.

3.3.4 Also, if requested, Supplier shall provide a brief resume for each individual listed in the plan.

3.4 GM Program Personnel. GM key contacts and personnel assigned to the Program(s) are listed in the SOR appendices, specifically the Buyer and Design Release Engineer (DRE). Additional contacts can be obtained from the GM Buyer.

Supplier shall provide access to its facilities and those of its subcontractors for GM and/or its designated representatives.

3.5 Sale of Product/Commodity to be Supplied and Developed for GM to Others. Except as expressly approved in writing by GM Buyer, the sale of final assemblies or specific components developed and produced for GM under this or superceding contracts is prohibited to any parties outside of GM. This includes parts for service.

3.6 Retention of Engineering and Manufacturing Information. This section summarizes the GM requirements involving the retention of engineering and manufacturing information. In general, the Supplier shall retain all engineering and manufacturing information for products supplied to GM in accordance with the General Motors Record Retention Schedule (GMRRS). All information relating to GMRRS can be found on the GM SupplyPower web site or by contacting the Buyer.

3.7 Document and Data Security. Supplier's role as an Integrated Supplier will provide Supplier and its employees with access to GM product, marketing plans, and technical information, which is proprietary to GM.

3.7.1 GM Information will be exposed to Supplier employees both formally in their role in performing this SOR, and informally by their presence within GM workplace.

3.7.2 GM Information will also be exposed to Supplier subcontractors and service providers.

3.7.3 Supplier acknowledges that public disclosure of such information, or its use for other customers of Supplier, will cause substantial harm to GM and will adversely affect GM willingness to do future business with Supplier.

3.7.4 Although it is incumbent on Supplier to formulate, communicate, and enforce policies consistent with Supplier's responsibility to protect GM Information, Supplier shall, at a minimum, demonstrate adherence to the following:

3.8 Information Security Requirements.

3.8.1 Follow any non-disclosure agreement commitments.

3.8.2 GM Information must not be released to the public through media interviews, publications, seminars, conversations, or in any other manner without a review procedure and GM management approval.

3.8.3 Grant access to GM Information based only upon need to know.

3.8.4 All Supplier employees working on GM Information are required to sign an Intellectual Property Rights Agreement. Form to be maintained at Supplier.

3.8.5 Supplier employees working on GM Information must safeguard all GM Information created, used or acquired in connection with their employment during and after their period of employment, including protection from unauthorized disclosure, modification, compromise, or destruction.

3.8.6 Copying and distributing GM Information must be strictly controlled in whatever media exists. Copying of copyrighted material is strictly prohibited without the permission of GM.

3.8.7 Develop disaster recovery plans and business resumption plans in the context of overall contingency management. Provide recovery capabilities for all stored GM Information based on the GM defined requirements.

3.8.8 A Level of backup in place for Supplier computing and communication network devices consistent with the level of risk and the impact upon the GM business unit.

3.8.9 Remove all access capabilities to GM Information (e.g., personal identification cards, access cards, keys, identification codes and passwords, GM computing and communication resources) when Supplier employees transfer or terminate their employment.

3.8.10 Suspicion or occurrence of any fraudulent activity, unauthorized disclosure, modification, misuse, or disposal of GM Information, including intrusions or incidents of impaired or denied availability to the GM computing or communications environment must be reported promptly to GM Corporate Security.

3.8.11 Understand the GM Data Classification process explained in the GM Information Security Policy and Processes (GM ISP&P) and protect all GM Information in a manner commensurate with its proprietary classification.

3.8.12 Disposal of GM Information must be done in a manner that assures complete disposal, and protects against unauthorized disclosure during the disposal process at the completion of the retention period.

3.8.13 Protection against viruses on any system that has access to files that could contain viruses including anti-virus scanning applications (i.e., scanning for known viruses every time system is booted) and anti-virus monitoring to detect any unusual application behavior.

3.8.14 It is the responsibility of Supplier to comply with copyright laws, to protect GM ownership in its copyrighted property, and to respect the copyrights of others.

3.8.15 Provide unique identification and authentication for each Supplier employee with access to GM Information. Passwords are selected and kept confidential by the Supplier's employee. Suspend user identification access to GM Information after some maximum of failed sign on attempts (suggest six (6) failed attempts). Disable user identification(s) if not used after a period of time (suggest 60 days).

3.8.16 Require compensating practices, if access controls are inadequate to protect GM Information.

3.8.17 Segregation of duties must be maintained for the access of GM computing networks, systems, and applications.

3.8.18 Encrypt any GM Classified Information (GM Classified, GM Confidential and GM Secret) transmitted over external networks.

3.9 Physical Security Requirements.

3.9.1 Physical access to areas containing proprietary documents and data processing resources must be controlled.

3.9.2 The area where data, equipment, and documents are located must be physically secure.

3.9.3 Controls must be developed commensurate with the exposure of the data, the documents, and the equipment being used.

3.9.4 Computer equipment must be protected from environmental hazards. At a minimum, Supplier specifications must be adhered to.

3.10 Right to Audit.

3.10.1 GM has the right to review, audit, or monitor, in accordance with the local law at any time with reasonable notice under normal circumstances. In those facilities supporting multiple company or government projects, this activity shall be limited to only the data identified related to GM.

3.10.1.1 All GM Information, data, and computing and communication resources utilized to support GM business.

3.10.1.2 All business process activities, information, data, and computing and communication resources of non-GM providers that support GM business.

3.11 Supplier Proposed Revisions to the SOR. Proposed revisions by Supplier to the SOR (including suggestions which may reduce cost and timing or increase customer value) should be identified clearly in Supplier's response to the RFQ using CG3404 M7 Technical Issues List. Should GM elect to adopt some or all of any such proposed revisions, the applicable SOR will be modified accordingly and authorized by the GM Buyer and the GM DRE in writing.

3.12 Requirements for Electrical and Electronic Products/Commodities. All products or commodities incorporating electrical, electronic or electromechanical subassemblies; such as circuit boards, processors, Application Specific Integrated Circuits (ASIC) discrete electronic components, switches, relays, etc.; or devices with embedded software, shall adhere to the requirements specified in GMW15923 Statement of Requirements for All Electrical and Electronic Systems and Components, unless otherwise specified.

3.12.1 All electrical and electronic systems or components shall be validated utilizing GMW3172 as the basis for the validation procedure unless otherwise specified. Additionally, design and packaging of electrical connectors shall comply with ergonomic requirements specified in SAE USCAR-25 Electrical Connector Assembly Ergonomic Design Criteria.

4 Validation

4.1 Program Management. Supplier management and administration tasks are described in 4.1.1 through 4.1.3.

4.1.1 Program Plan. Supplier shall prepare a Program Plan that encompasses the Advanced Product Quality Planning (APQP) expectations and identifies 4.1.1.1 through 4.1.1.12.

4.1.1.1 Program deliverables, requirements, and objectives and schedules.

4.1.1.2 The completion of each on a timing chart which conforms to the program milestones, including and comprehending any regional timing differences on global programs.

4.1.1.3 The first draft of the Program Plan shall be submitted during the sourcing phase for the product/commodity to be supplied.

4.1.1.4 This plan, approved by the Buyer, shall be periodically reviewed and shall contain sufficient detail to enable GM to measure progress of the Program.

4.1.1.5 This will be done in relation to the desired objectives.

4.1.1.6 Identify specific problem areas; assess the progress of the Program(s) in relation to the desired objectives; and determine a means for adjusting program efforts and resources to keep the Program(s) on track toward the objectives.

4.1.1.7 Supplier shall publish periodic Program Plan updates showing the status of the Program activities.

4.1.1.8 The Program Plan shall be a summary of the specific individual plans required by this SOR and shall address all of the required Supplier plan deliverables, including the Resource Plan, Engineering Plan, Analysis/Development/Validation (ADV) Plan, Reliability Program Plan, Build Plan, Mass Reduction Plan, and Service Readiness Plan.

4.1.1.9 Each of these plans shall be prepared by Supplier and submitted to GM for review and approval, per the summary of deliverables schedule.

4.1.1.10 Supplier shall execute and maintain all program management initiatives for the Program(s) (e.g., Gantt charts on tool timing).

4.1.1.11 Additionally, Supplier shall be the program manager for all tiered Suppliers.

4.1.1.12 Additional information, including the following, shall be made available to GM as specified or upon request:

- Program expense summaries shall be submitted monthly to GM Buyer (i.e., engineering spending curve).