

SRC Integrated Data Collection and Analysis Provides Real-Time Data Trending and Decision Support

Problem: A Department of Defense (DoD) customer is tasked with analyzing overall fleet readiness and supportability. The DoD customer requires support collecting data, analyzing the data, interpreting the results and developing formal capability assessment reports for the readiness; reliability; failure modes, effects, and criticality analysis (FMECA); maintainability; and safety/deficiency of their ground equipment.

Approach: SRC was contracted by this DoD customer to support their data collection, analysis, and interpretation needs. SRC will analyze available historical maintenance data for this DoD Ground Equipment and compare achieved data (from the field) to the original specifications they were designed to meet. SRC engineers will analyze this historical data to identify: the subsystem/parts contributing most to the downtime of respective equipment, top system degraders based on criticality of failures, and top maintenance cost drivers.

Solution: SRC developed a web-based data management tool that summarizes raw maintenance data from a DoD computerized maintenance management systems. SRC engineers continually identify assumptions and other logic to overcome data integrity issues with the raw maintenance data. The data management tool provides metrics for the reliability, maintainability, and supportability of the ground equipment to satisfy System Operational Effectiveness initiatives throughout the DoD. SRC developed a single metric to quantify the criticality of fielded parts and vehicles for comparison to the design FMECAs. This single criticality metric is derived using failure frequency, logistics response time/maintenance downtime, and part costs. SRC's data management tool allows the DoD customer to complete formal capability assessment reports for the Program Managers of this ground equipment, but also provides a real-time analysis tool to trend existing problems at the part, vehicle, region, or fleet level and provide lessons learned to future acquisition programs. [Note: Contact SRC for a demonstration of this customized web-based data management solution.]

SRC CONSULTING SERVICES

SRC consulting services address your toughest reliability, maintainability, and supportability (RMS) challenges. Since 1968, we have provided integral support to our commercial and defense customers to achieve their RMS goals. Beyond integrated data collection and analysis solutions, the trained and experienced reliability professionals at SRC provide expert support to improve your bottom line and meet your customer and mission requirements through:

- Training in reliability and related disciplines
- Benchmarking of your products, processes, standards, and metrics against R&M best practices
- Developing and implementing RMS program plans
- Facilitating RMS tasks (i.e., FMEA, R&M assessment, sparing analysis, etc.)
- Optimizing maintenance using reliability-centered maintenance techniques
- Identifying and assessing reliability goals and requirements
- Developing effective accelerated test strategies and procedures
- Conducting root cause and statistical analysis of problem areas
- Collecting and analyzing your data for customized engineering solutions
- Providing practical tools for engineers

The Alion SRC is ready to help you improve the availability, readiness, and total cost of ownership for your product. To get started, contact us today.