

## DoD Customer Reports \$140M In Cost Avoidance From SRC Recommended Component Reliability Improvements

**Problem:** Recently, the Department of Defense (DoD) has been particularly aware of the growth in operating and support (O&S) costs associated with sustaining and operating an aging aviation fleet. A significant contributor to the increase in O&S costs are Aviation Depot Level Repair (AVDLR) components costs which are increasing approximately 6-8% per year. This DoD customer contracted Alion's SRC to support their in-service reliability improvement goals.

**Approach:** To address the issue of rising AVDLR costs, the DoD customer worked with Alion's SRC to establish the Integrated In-Service Reliability Program (IISRP), which is a viable, comprehensive, and executable closed loop in-service reliability analysis process. The IISRP consisted of tasks to benchmark other DoD programs, assess inherent and operational reliability, effectively control critical items, ensure importance of reliability during design reviews, routinely inspect for reliability, maintainability, and supportability, perform life cycle planning, conduct market surveys, account for parts obsolescence, develop Quality Function Deployment (QFD) matrices, select optimal repair strategies, conduct statistical process control activities, control supplier reliability, and identify effective test strategies. Through on-site training, programmatic mentoring, and individual consultation, SRC instilled the knowledge necessary for each team to select, analyze, fix, and measure depot level repairable components not meeting required reliability criteria.

**Solution:** The DoD customer can use the IISRP to (1) tailor processes and resources to produce products capable of meeting their full reliability potential in operation, (2) identify and mitigate the maintainability and supportability factors that restrain products from achieving their maximum reliability, and (3) selectively apply redesign efforts that will have the greatest leverage in improving inherent operational reliability. The combined efforts of the IISRP Team and SRC have led to component reliability improvements leading to more than \$140M in cost avoidance since program inception.

### 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 development and implementation of RMS program plans, 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
- 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.