

AMSEC provides our customers with innovative solutions for product maintenance. We insert technologies to lower ownership costs and maximize the operational life of equipment.

### Maintenance Planning

The AMSEC team understands that the maintenance concept for a product influences the design process and is the foundation for all maintenance planning efforts. We also understand that operational and environmental conditions and constraints impact system maintainability and performance effectiveness.



AMSEC's comprehensive maintenance planning skills are drawn from practical, hands-on experience. We influence the design process to incorporate, where practical, built-in test equipment, as well as diagnostic, troubleshooting and repair features.

AMSEC provides a complete line of maintenance planning products for both DoD and commercial assets. This product line includes:

- integrated maintenance and performance systems;
- maintenance plans, schedules, and procedures;
- reliability-centered maintenance techniques;
- maintenance standards and work packages;
- maintenance monitoring; and
- maintenance analysis automation.

### Reliability-Centered Maintenance (RCM)

Reliability Centered Maintenance (RCM) is a proven methodology used to analyze systems and maintenance processes with the primary objective of preserving system functions. Using RCM, AMSEC identifies equipment failure modes that can defeat system functions, prioritizes the importance of failure modes, and selects only applicable and cost effective maintenance tasks for accomplishment. We have used this systematic method for engineering both initial maintenance strategies for new systems and re-engineering existing maintenance strategies for HM&E and electronic systems. RCM strives to apply new technologies to make maintenance less invasive and more cost effective. AMSEC's process ensures there is a method to monitor the effects of the changes made on the system in the form of Measures of Effectiveness (MOE) and Return on Investment (ROI).

AMSEC applies the following RCM principles:

- data driven for best results;
- methodologies preserve system function;
- maintenance tasks must be applicable and effective;
- tasks should use technology to be less intrusive; avoid "open and inspect";
- task periodicity to be based on maintenance data failure periodicities;
- most failures show signs of decreased resistance to failure that is measurable and suited to condition based maintenance assessment; and
- consider operational, safety, and economic factors.

Historically, condition based maintenance saves ~35% in costs over reactive maintenance. With RCM-based solutions, AMSEC has achieved as much as a 400 to 1 return on investment.

AMSEC has experienced NAVSEA RCM Level II certified personnel to properly apply RCM to HM&E and electronic systems to optimize maintenance strategies and improve operational availability (Ao) of both new and existing systems.

**Points of Contact:** Doug Hess  
202.264.7147  
douglas.hess@hii-amsec.com

Ryan Norris  
757.631.2239  
ryan.norris@hii-amsec.com

Jim Merrill  
757.631.2205  
jim.merrill@hii-amsec.com

