

Reliability Academy

Reliability Engineering Training Courses

Streamlined RCM (Reliability Centered Maintenance)

Goal: RCM was originally invented in the aerospace industry. Traditional RCM is quite tedious to perform as described in the text books. We will teach you the essential parts of 'Streamlined RCM', giving you the results needed to make maintenance decisions. RCM offers a systematic way to find the most important equipment and tasks from the maintenance (repair/ preventive) point of view. In addition, it helps to select the appropriate maintenance type for failures.

1. Overview: Elements of the RCM Analysis

- Basic terms, calculation of Reliability, Maintainability and Availability
- RCM Steps

2. System and Configuration Description

- System/ Configuration description and documenting for target system.
- Scope of the target system

3. Failure Modes Analysis for RCM

- FMEA - Connecting System description and failure modes analysis.
- Criticality classification scheme for failure effects
- Tools for performing FMEA effectively

4. Failure Data

- How and where to get reliable Failure data, failure data collection scheme
- Failure characteristics for effective maintenance tasks

5. Maintenance Analysis

- Maintenance data estimation, where and how to get M-data
- Maintenance sequences
- Preventive and Corrective maintenance

6. Unavailability Calculations

- Unavailability using failure criticality. Tools for UA calculations.

7. System improvement

- Selecting more appropriate and effective Preventive Maintenance tasks
- System improvements for the 'bottleneck' equipment: reduce MTBF or MTTR

8. Summary

- Discussion and advice how to start an RCM program for an actual case.