



Aladon

The Risk & Reliability

GLOBAL NETWORK

RELIABILITY CENTERED MAINTENANCE (RCM3™)

WELL-DEFINED PROCESS
EXTENDING THE RIGOR
OF RCM2™, EXCEEDING
RCM SAE STANDARD



www.aladon.com

WHY CHOOSE ALADON FOR YOUR RCM PROGRAM?

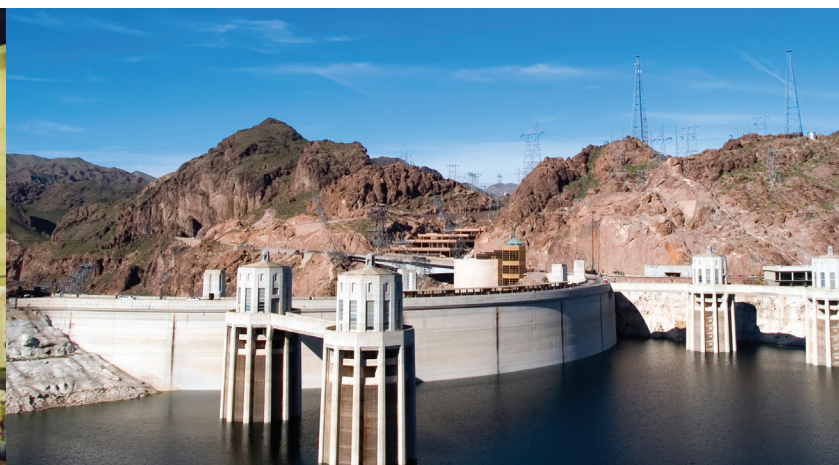
- Aladon pioneered RCM for industrial application more than 30 years ago (RCM2™)
- Aladon has applied RCM to every endeavor known to mankind and brings real life experience with world-class training and consulting services
- Aladon places risk and reliability mainstream with Physical Asset Management
- Aladon changes minds and hearts of people responsible for maintenance and reliability
- Aladon trains more people in RCM than any other RCM provider
- Aladon innovates with the latest integrated risk-based methodologies, managing physical assets throughout the entire life-cycle
- Do not rely on luck to avoid catastrophic events
- Aladon empowers operators and maintainers through known practices

BACKGROUND AND HISTORY OF ALADON'S RCM METHODOLOGY:

Since the research that was done by the Maintenance Steering Group (MSG) led by Stan Nowlan and Howard Heap in the airline industry in the 1960s and 1970s which led to the subsequent release in 1978 of the report called "Reliability-centered Maintenance (RCM)", Aladon under leadership of John Moubray pioneered the development and implementation of RCM for the industrial sector. Moubray developed and trademarked the rigorous and robust seven question process called RCM2™. The seven questions of the RCM2 process follows the logic of the methodology that originated from the work by Nowlan and Heap and Moubray preserved the intent of their thought process; however, the 1978 report also gave birth to many derivatives and streamlined versions of RCM of which very few were actually close to the original intent of Nowlan and Heap. In 1986 Moubray founded Aladon and created The Aladon Network comprised of certified professionals with industry experience called Aladon Practitioners. The Aladon Network applied RCM2 on more assets and in more industries than any other form of RCM. Aladon and The Aladon Network have trained delegates around the globe in RCM2 and applied RCM2 for more than 30 years in almost all endeavors known to mankind.

Because of the confusion that surrounded multiple versions of RCM, industry felt the need for a standard. The SAE JA 1011 standard (released in 1999) describes the minimum criteria a process must possess to be called RCM. John Moubray's book, called Reliability Centered Maintenance (RCMII), is a key reference in the standard.

Aladon continuously review new techniques, technologies and standards to ensure Aladon's RCM is current and in line with industry needs to continue safe and effective operations of their assets while ensuring regulatory compliance. The 4th-Industrial Revolution requires maintenance to adopt new techniques and technologies. The 4th Generation Maintenance responds to the needs of Industry and RCM3 fulfills all these requirements. RCM3 is the new standard in physical asset risk management and reliability program development. The following paragraphs will describe the RCM3 process and the Aladon training program and how you can become a Certified Aladon RCM3 Facilitator.



RCM3™:

Through more than 30 years of experience applying RCM2 and realizing the world of maintenance continues to change with new technologies, our methodology was advanced to a risk-based approach to mainstream and align risk and reliability strategies with organizational management strategies for physical assets. Our risk-based RCM (RCM3) is fully aligned with the newest technologies and underpins the international asset management standards (e.g. ISO 55000 and ISO 31000). RCM3 is fully compliant and exceeds the requirements of the SAE RCM standard.

RCM3 is:

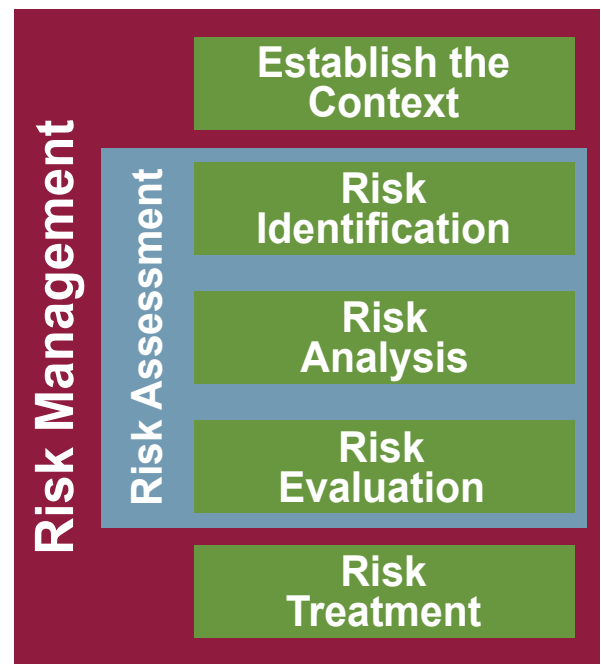
A process used to define the minimum required **safe amount of maintenance**, engineering and other risk management strategies **to ensure a tolerable level of safety, environmental integrity and cost effective operational capability** as specified in the organization's asset management standard.

On the surface, RCM3 looks very similar to the RCM process defined in the SAE standard, but the improvements made in RCM3 are significant, especially with regards to safety systems. Our risk-based RCM process allows organizations not only to identify operator and maintenance risks (physical and operational), but also to quantify these risks. Once the risks have been identified, the people closest to the assets are in a position to identify the best risk management strategies that would reduce these risks to within tolerable levels or eliminate them completely. Decisions are made at all levels in the organization, from **operator driven reliability programs** as well as **organizational or corporate responsibilities**.

RCM3 achieves these objectives through the following eight questions:

- What are the operating conditions (operating context)?
- What are its functions (what do its users want it to do)?
- In what ways can it fail (failed states)?
- What causes it to fail (failure cause and mechanism)?
- What happens when it fails (failure effects)?
- Does it matter if it fails (inherent risk quantified)?
- What **MUST** be done to reduce intolerable risks to a tolerable level?
- What **CAN** be done to reduce tolerable risks further in a cost-effective way?

RCM3 fully integrates with Aladon's RCD and RCFA to provide a wholistic approach to continuous improvement.



The advantage of our approach is:

- More decisions are made at lower levels in the organization, bringing about real change through empowerment
- Risk-based approach allows for faster decision making and rapid implementation, saving time and resources
- No longer a need for up-front criticality assessment, criticality assessment is integrated within the RCM3 process
- Improved risk management decisions especially for managing safety systems and protective devices
- Alignment with ISO Standards for asset management and risk management, making RCM3 an essential process for strategy development and compliance

RCM3 EXECUTIVE OVERVIEW

The RCM3 Executive Overview is intended for senior managers and executives who are interested in operational sustainability, safety and reliability, environmental integrity and overall operational effectiveness. This one-day course introduces executives to the intricacies of modern asset management so that they are best prepared to actively sponsor an asset performance improvement initiative. Roles and responsibilities within a reliability improvement initiative are examined, and the keys to success are discussed along with the review of actual case studies. A 2-3 hour RCM3 Overview session is available for senior executives.

RCM3 INTRODUCTORY COURSE

The RCM3 Introductory Course provides a comprehensive introduction to RCM3 and its principles. This 3-day course is intended for those who are interested in understanding what RCM3 is and how it can be applied to define technically-based maintenance and reliability programs. During the course, delegates will apply best practices in answering the eight questions of RCM3 using a real life case study approach.

ADVANCED RCM3 FACILITATOR TRAINING, COACHING AND MENTORING

Aladon's Advanced RCM3 Facilitator Training consists of three stages. The first stage is completing the RCM3 Introductory Course. The second is completing the Advanced RCM3 Facilitator Course (10-day classroom training). The third stage is on-site mentoring and coaching designed to introduce the skills necessary to successfully lead an RCM analysis. An experienced Aladon Certified Practitioner will teach delegates to understand the skill sets and competencies of a facilitator through classroom application and coaching using real world case studies.

RCM3 FACILITATOR CERTIFICATION

The Aladon Certification Program assists you in taking all of your classroom training to the next level in your organization. The program is designed to provide the appropriate amount of coaching and mentoring to build your competency to the quality levels expected by Aladon, and in order to get certified, a 5-hour written exam must be passed. The Aladon RCM3 Facilitator Certification is a sought after prestigious qualification with worldwide recognition.

