

# Global Reliability Training

## Executive RCM2 Overview—1 Day Course

### Special points of interest:

- **Executive RCM2 Overview**
- **Twitter and Facebook**
- **Reliability Centred Maintenance from a historical perspective—written by Mike Charleston**

If you feel that this e-newsletter would be of use to any of your colleagues please feel free to pass it on!

Click [here](#) and we will be happy to add your details to our database to keep you up to date with special offers and news.

Follow us now on [Twitter](#) and [Facebook](#)

Stay on top of the latest updates, training seminars and announcements from Global Reliability Training by clicking on the links below:

Like us on [Facebook](#)

Follow us on [Twitter](#)

### Recommended participants:

Chief Executives  
General Managers  
Operations Managers  
Vice Presidents  
Directors  
Plant Managers  
Maintenance Managers

**Pre-requisites:** Executive business experience

**Take Home:** RCM2 Overview Handbook

Physical asset management is often perceived as a cost centre by senior management, rather than a strategy that drives financial improvements. World leading companies recognise that RCM2 principles drive optimal equipment performance that translates directly into bottom line improvements – a theme which is now embedded in PAS55, the new publicly available standard that considers whole-of-life asset management.

Attend this workshop and become versed in the language of the leading standard of Reliability Centred Maintenance, RCM2. You will walk away better equipped with the knowledge of how to ensure that your physical assets make a positive contribution to your overall business strategy.

As a senior executive, this course introduces you to the realities of modern asset management, which requires involvement and active sponsorship from all levels of the organisation. The course also helps to define your role in an improvement initiative and provides an overview of the reliability strategies necessary to succeed.

You will be introduced to RCM2, the standard in Reliability Centred Maintenance that is centred on the role of maintenance and operations in achieving optimal asset performance and reliability. RCM2 provides the framework necessary to develop a practical and defensible asset reliability programme that focuses on mitigating the consequences of equipment failures.

Correctly applied RCM2 achieves greater safety and environmental integrity, improved operating performance and profitability, greater maintenance cost-effectiveness, and longer useful life of expensive assets.

### By participating in this course you will:

Understand the fundamental principles of RCM2.  
Learn how RCM2 contributes to overall business success.  
Gain direction for achieving measurable, sustainable results in asset performance.  
Have a clear understanding of your role as an executive sponsor of equipment reliability initiatives.  
Walk away with a plan to take actionable steps toward a proactive approach to asset care.  
Be equipped with the knowledge to make more informed decisions in support of your asset management strategies.

For more information including costs please contact Sarah Chalmers at [sarah@globalreliabilitytraining.co.uk](mailto:sarah@globalreliabilitytraining.co.uk) or telephone 07773 670163.

# Reliability Centred Maintenance from a historical perspective

Maintenance professionals have benefitted enormously from developments in RCM (Reliability Centred Maintenance) and the emergence of associated reliability techniques over the past few decades. Despite this, some managers still don't appreciate the importance of the fundamentals in today's modern techniques and some have yet to realise the changes in understanding that now guide their maintenance colleagues.

There are many pointers that emerge from those early times. We can't identify them all in this article - but there is some value in looking back for what could be called early "aha! moments".

Most reliability specialists can relate to the pivotal role played by the American civil aviation industry in developing RCM, alongside the focus provided by a seminal report that was simply entitled "Reliability-Centered Maintenance" and published in 1978 (almost 500 pages of it) by Stan Nowlan and Howard Heap.

Until this time, aircraft maintenance had always operated along traditional lines. One assumption was that if more scheduled maintenance was undertaken, the more reliable the equipment would be. Another was that reliability and operating safety were directly related, so each item had a "right" overhaul time which could be discovered - and in the meantime, must not be exceeded.

These assumptions had previously governed the maintenance of aero engines for example, where the emphasis on continued flying safety encouraged more and more analysis of overhauls and their frequency, until they reached a predictable conclusion that shorter periods between engine overhauls would naturally reduce the number of in-service maintenance faults.

Against this background, Nowlan & Heap's report was quite staggering for what it revealed about the impacts achieved on maintaining aircraft - particularly in the sense that:

The overall reliability of a complex item is hardly affected by scheduled overhauls (unless there is a dominant failure mode).  
There are many items for which there is no effective form of scheduled maintenance.

Put another way, complex items often had no quantifiable "life" - so anything in that category would not benefit from being overhauled on a regular schedule. The next failure would still occur within them unpredictably - unless some other form of (inspection) maintenance was also adopted. That's "aha moment" number 1!

What's more, many items of equipment on an aircraft need not receive any scheduled form of maintenance at all; it is enough to inspect them for evidence of significant deterioration - or simply fix them when found to be broken. That's "aha moment" number 2!

These findings staggered the civil aviation industry then and caused a great upheaval in aircraft design and operation as the principles were adopted. Of course the effect was fully justified and later results have entirely vindicated all that was written.

Fresh generations of people from many different industry sectors have been equally amazed over the years since then. Yet even now, the principles are not recognised by all of the higher management tiers that really need to understand them.

Maintainers and reliability specialists may have embraced the RCM culture and principles; other managers in the more enlightened companies have too - but there still remain too many managers in control of the activities of maintenance colleagues (and their budgets!) who haven't grasped the realisation that so much reactive maintenance effort can be reduced by turning it into planned maintenance; and so much planned maintenance can be eliminated because it is wasted effort.

Perhaps even more fundamentally, despite today's economic challenges many company directors haven't yet identified with the potential savings that RCM can create for them!

*Reliability Centred Maintenance ensures a continuing focus on safety and environmental priorities whilst reducing unproductive efforts by maintenance teams. The technique reduces costs, trains personnel in operating and maintaining their equipment, assists with troubleshooting, minimises spare parts inventories and promotes a move from emergency (reactive) maintenance to a more orderly regime of planned activities.*

*These benefits in turn create improved operating performances, motivation of individuals/groups, clarity over resourcing needs, longer useful equipment life, comprehensive information sources, justifiable and auditable decisions.*

*RCM2 is the form of RCM conducted exclusively by members of The Aladon Network. It conforms to the international standards that govern what can be described as being RCM (SAE JA1011 & SAE JA1012).*

*If you would like further information, please email [sarah@globalreliabilitytraining.co.uk](mailto:sarah@globalreliabilitytraining.co.uk) or telephone 07773 670163.*