



MAINTENANCE DATA MANAGEMENT

The Maintenance Data Management process is about satisfying the customer's maintenance requirement and delivering that maintenance in a rationalised manageable package, thus increasing availability by reducing downtime.

Having established the required maintenance using formalised methods, it is necessary to identify all those tasks that are candidates for rationalisation and packaging. Candidate tasks must satisfy the following conditions:

- ◆ Tasks must have the same or similar intervals
- ◆ Tasks require the same skills to carry out the work
- ◆ Tasks all apply to the same item of equipment, or a common system shutdown requirement allows tasks to be carried out on other items at the same time.

When rationalising tasks, the interval for a task with safety implications cannot be extended but can be reduced in order to align with other maintenance. Intervals for non-safety tasks can be extended subject to defined authorisations.

Where tasks involve a range of skill levels, the highest skill competency level is used for rationalisation purposes.

Equipment maintainers and operators are consulted and actively involved when packaging candidate tasks into combination tasks which will lead to a more concise and manageable schedule. This schedule must then be compared with the available resources to ensure that the organisation has the manpower to carry out this maintenance. Our *Upkeep Cycle Modelling Tool* has been successfully used to conduct this comparison.

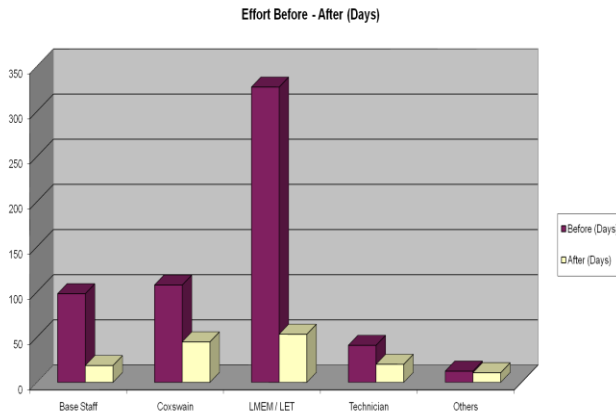
The maintenance task instructions are then written using available information (including manufacturer's guidance) and for combination tasks particular care is taken to avoid duplication of maintenance effort.



Case Study: Landing Craft Utility (LCU)

Rmada carried out a review and maintenance rationalisation exercise for the Royal Navy's LCU that consisted of nearly 90 different maintenance schedules derived from Ship Builder, OEM maintenance and existing RN legacy maintenance; these schedules generated more than 600 directed tasks for this craft.

The task rationalisation approach used the RCM consolidation process¹ to break the RCM analyses into 3 functional areas.



Maintenance tasks applying to equipment not fitted to this craft were first deleted. The remaining tasks were consolidated and rationalised into a maintenance schedule consisting of 230 tasks. Although seemingly obvious this is a common occurrence when maintenance reviews do not keep pace with changes to an organisations asset register.

Further packaging reduced the schedule to 163 tasks. The reduction in maintenance effort as a result of this exercise is shown in the figure.

Summary: a review of the maintenance on this craft identified that duplication of effort was being carried out. The rationalisation of the RCM and maintenance followed by 'packaging of maintenance resulted in a 70% reduction in task and at least 50% reduction in effort.

¹ RCM Enabling Tools, in this series of monographs.