

Availability, Reliability and Maintainability (AR&M)

If equipment fails to operate effectively when required, the consequence can be fatal.

AR&M ensures that weaknesses are addressed in factors affecting the continuous delivery of a capability to produce robust and easy to maintain systems that are suitable for purpose. Consideration of AR&M is an essential part of a coherent approach to Through Life Capability Management, enabling increased availability, reduced whole life cost and/or improved safety.



Atkins understands the need for projects to move quickly to meet the challenging timescales for the introduction of new capability and the needs of the user to have a dependable solution. Our experience enables us to meet these needs without excessive cost by developing an AR&M Strategy and Through Life AR&M Plan proportionate to the level of AR&M risk faced by the project.

Atkins specialise in the development of AR&M requirements, AR&M plans and the production of the R&M Case throughout all phases of the acquisition lifecycle.

Atkins manages AR&M risks in accordance with each project's risk and opportunity management plan so that factors affecting AR&M receive the level of attention required from the project to ensure appropriate resources are available to mitigate AR&M risks.

Atkins develops the R&M Case in accordance with Defence Standard 00-42 R&M Assurance Guide Part 3 R&M Case. The R&M Case presents the supporting evidence required to mitigate AR&M risks and provide assurance that the AR&M requirements are SMART, traceable and will be achieved. The structure of the R&M Case developed by Atkins provides a clear, comprehensive argument to all interested parties of how the R&M Case argument has been constructed. The structure supports project management activities by allowing clear monitoring of progress towards the successful completion of the R&M Case.

Joint Military Air Traffic Services (JMATS)

Atkins has developed the JMATS Initial R&M Case that presents the AR&M requirements framework in support of the AR&M Strategy to contract for a wide range of terminal Air Traffic Management (ATM) services through a Contracting for Availability (CfA) commercial arrangement. Atkins ascertained and recorded the needs of the user through the facilitation of stakeholder workshops and translated these needs into meaningful a team of specialists requirements. Atkins also conducted analysis of in-service data supported by AR&M modelling using a team of specialists to derive SMART quantitative AR&M requirements.

Future Rapid Effect System (FRES)

Atkins performed the role of System House during the Assessment Phase of the FRES Programme. Atkins' team of specialists defined the AR&M requirements, analysed design options and developed an AR&M strategy and Through Life R&M plan that was fully aligned with the supportability and system engineering activities and was based on the assessment of AR&M risks.

Availability Modelling

Atkins is the design authority for the RAM4, System Availability Model (SAM) and RAMP tools. As the expert user, Atkins has produced models using these tools to support the development of AR&M requirements and to provide assurance that the design solution is compliant with the AR&M requirements. Capabilities modelled include: Carrier Vessel Future (CVF), Type 45 Destroyer, Future Surface Combatant (FSC), Military Afloat Reach and Sustainability (MARS), Airfield Radar Integration Project (ARIP) and Airborne Stand-Off Radar (ASTOR) System.

Production of AR&M Guidance

Atkins has supported the Committee for Defence Equipment Reliability and Maintainability (CoDERM) in the production of Defence Standard 00-42 Part 3 and has developed a number of guidance documents including the R&M booklet for MOD Procurement and a number of chapters within GR77.

As the independent partner of choice in Defence & Security, we pride ourselves on finding the right solution whatever the challenge. Our expertise spans land, sea and air as well as information and communications and we work throughout the lifecycle of a platform, system or facility.

For more information please visit:

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