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Nota di contenuto	1: Introduction -- 2: The RCM Program -- 2.1 Airline Industry RCM Programs -- 2.2 The US Army Aircraft RCM Program -- 2.3 The Decision Logic Process for US Army Aircraft -- 2.4 The RCM & ILS Interface -- 3: R&M Theory and Fundamental Concepts -- 3.1 Reliability-Age Characteristics -- 3.2 Reliability Degradation and Growth -- 3.3 Reliability Concepts and the Exponential Distribution -- 3.4 Maintainability Concepts -- 3.5 Availability Analysis -- 3.6 R&M Modeling -- 3.7 Life-Cycle Activities -- 4: R&M Engineering -- 4.1 Reliability Allocation and Prediction -- 4.2 Maintainability Allocation and Prediction -- 4.3 Failure Mode Analysis -- 4.4 Reliability testing -- 4.5 Production, Storage and In-Service Degradation Control -- 4.6 Environmental Stress Screening (ESS) -- 5: The Application of RCM within Depot Maintenance -- 5.1 The Depot Maintenance Process -- 5.2 Failure Mode Inspection Techniques -- 5.3 Airframe Condition Evaluation (ACE)—An On-Condition Maintenance Technique -- 6: The Army Aircraft Flight Safety Prediction Model -- 6.1 General Description and Assumptions -- 6.2 US Army Helicopter Application -- 6.3 Application of the Flight Safety Prediction Model with the RCM Logic -- References -- Appendix A: Glossary -- Appendix B: Bibliography.
Sommario/riassunto	In this book the authors provide a fresh look at basic reliability and maintainability engineering techniques and management tools for ap-

plication to the system maintenance planning and implementation process. The essential life-cycle reliability centered maintenance (ReM) activities are focused on maintenance planning and the prevention of failure. The premise is that more efficient, and therefore effective, life-cycle main- tenance programs can be established using a well disciplined decision logic analysis process that addresses individual part failure modes, their consequences, and the actual preventive maintenance tasks. This premise and the techniques and tools described emphasize preventive, not corrective, maintenance. The authors also describe the techniques and tools fundamental to maintenance engineering. They provide an understanding of the inter-relationships of the elements of a complete ReM program (which are applicable to any complex system or component and are not limited only to the aircraft industry). They describe special methodologies for improving the maintenance process. These include an on-condition maintenance (OeM) methodology to identify defects and potential deterioration which can determine what is needed as a maintenance action in order to prevent failure during use.