

Submitted for recognition as an American National Standard

### Evaluation Criteria for Reliability-Centered Maintenance (RCM) Processes

**Foreword**—Reliability-Centered Maintenance (RCM) was initially developed by the commercial aviation industry to improve the safety and reliability of their equipment. It was first documented in a report written by F.S. Nowlan and H.F. Heap and published by the U.S. Department of Defense in 1978. Since then, RCM has been used to help formulate physical asset management strategies in almost every area of organized human endeavor, and in almost every industrialized country in the world. The process defined by Nowlan and Heap served as the basis of various application documents in which the RCM process has been developed and refined over the ensuing years. Most of these documents retain the key elements of the original process. However the widespread use of the term "RCM" has led to the emergence of a number of processes that differ significantly from the original, but that their proponents also call "RCM." Many of these other processes fail to achieve the goals of Nowlan and Heap, and some are actively counterproductive.

As a result, there has been a growing international demand for a standard that sets out the criteria that any process must comply with in order to be called "RCM." This document meets that need.

The criteria in this SAE Standard are based upon the RCM processes and concepts in three RCM documents: (1) Nowlan and Heap's 1978 book, "Reliability-Centered Maintenance," (2) US naval aviation's MIL-STD-2173(AS) (Reliability-Centered Maintenance Requirements of Naval Aircraft, Weapons Systems and Support Equipment) and its successor, U.S. Naval Air Systems Command Management Manual 00-25-403 (Guidelines for the Naval Aviation Reliability-Centered Maintenance Process), and (3) "Reliability-Centered Maintenance (RCM 2)," by John Moubray. These documents are judged to be the most widely-accepted and widely-used RCM documents available.

This document describes the minimum criteria that any process must comply with to be called "RCM." It does not attempt to define a specific RCM process.

This document is intended for anyone who wishes to ascertain whether any process that purports to be RCM is in fact RCM. It is especially useful to people who wish to purchase RCM services (training, analysis, facilitation, consulting, or any combination thereof).