



CURT KAMPMEIER CMC  
EDITOR

## Effective Risk Management: Some Keys to Success

Edmund H. Conrow CMC (*American Institute of Aeronautics and Astronautics, Inc., Reston, VA; 2000; ISBN 1-56347-383-6*) \$79.95

REVIEWED BY PRESTON SMITH CMC

Edmund Conrow has over 20 years' experience managing risk in product development projects, most of it on large, complex, system-acquisition programs for the U.S. Department of Defense (DoD) and NASA. Consequently, this book centers on a well-established risk-management methodology that the DoD encourages its contractors to use.

Unanticipated and unmanaged risks in development projects lead to schedule slippage and cost overruns in the development phase. They can also cause similar problems in the production phase, as well as product-performance disappointments when the product reaches the field. Such problems make the headlines for large government-funded programs, but they are just as common on smaller commercial ones. As product development processes have become more sophisticated in recent years, project risk management is one area that is receiving a great deal of attention, reflected in the publication of this and other books.

Conrow emphasizes that good risk management is proactive in nature and fundamentally different from the crisis-management or fire-fighting style that many line managers employ and for which they are inadvertently rewarded. Thus, this book, the DoD methodology, and other sources all suggest a process

that identifies and handles risks early in the project with an emphasis on risk prevention. But because fire fighting is the prevalent management style in many organizations, implementing an effective risk-management process in an organization can be a challenge. The consultant's role is often to spot reactive behavior and to guide management in becoming more proactive in dealing with risk.

Chapter One introduces the subject, illustrating historically how poorly risk has been managed in major programs. An interesting section on micro-economics outlines the trade-offs among cost, (product) performance, and schedule that occur in managing a program. Conrow observes that DoD and NASA programs traditionally have emphasized performance, even when it is obtained at a high price in money or schedule. Due to cutbacks in defense and space programs in the United States, this balance has shifted some in recent years, and my experience is that the balance is quite different in commercial programs, where cost or schedule has dominated traditionally.

Chapter Two summarizes the DoD risk management process, describing each step. The heart of the book lies in Chapters Three through Eight, each of which comprises considerations regarding a phase of the risk management process. The word "considerations" is apt, because most of this material highlights critical points or weaknesses in existing risk management programs, based on Conrow's deep experience in this field. For example, Table 3.1 lists missing steps in various organizations' risk management processes. Consequently, this material is

aimed more at improving an existing process than at implementing a new one.

The book also has 10 appendices. Appendix A compares risk management between commercial projects and ones at the DoD and NASA. It notes that while government programs involve technical and financial risk, commercial ones also involve people and market risks (which are covered only lightly in the book). Even the financial risks can be quite different for low-volume military production versus high-volume commercial projects. The remainder of the appendices are more technical, although there is some excellent material for risk practitioners in appendices G and I. These appendices address the linchpin of risk management—namely, handling qualitative estimates of risk and so-called ordinal scales.

Should you buy this book? Given its price, I found the editing and presentation disappointing. The table of contents and index are meager. Indistinct page design, unclear organizational structure, a chapter that runs for a hundred pages, and sparse graphics contribute to a general unfriendliness. But, Conrow generously provides details from his extensive experience, and these will amply reward the specialist in this field who takes the time to dig into the book.

---

*Preston Smith CMC (preston@NewProductDynamics.com) specializes in helping manufacturers bring their new products to market faster and more effectively. He is coauthor of Developing Products in Half the Time and Proactive Risk Management: Controlling Uncertainty in Product Development (Productivity Press, 2002).*