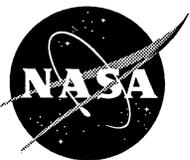
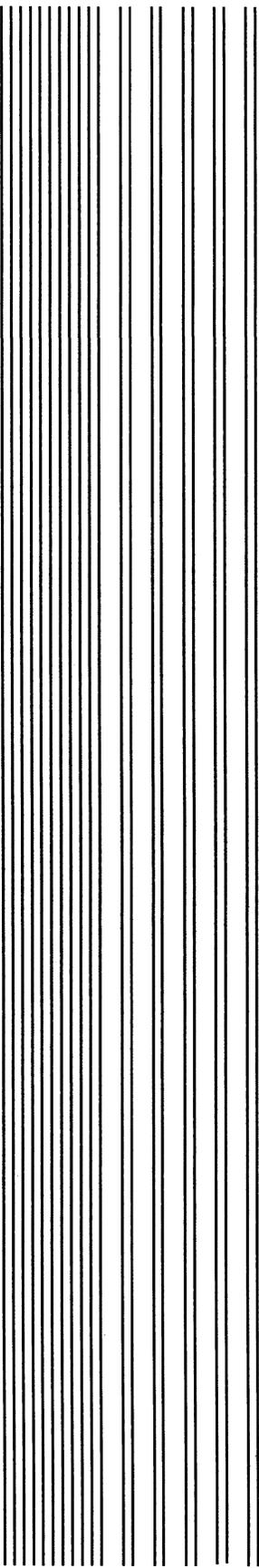


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ISSUES IN NASA PROGRAM AND PROJECT MANAGEMENT



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edited by

Francis T. Hoban

Program Manager

NASA Program and Project Management

Training and Development Initiative



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FOREWORD

This collection of papers and resources on aerospace management is an outgrowth of recommendations issued in 1986 by the NASA Management Study Group, better known as the Phillips Committee. A key recommendation emphasized the need for formal training and development of program and project managers within NASA. A Program/Project Management Steering Group, established in 1984, set out to develop a management experience library to support those formal training and development programs, seeking lessons learned, policy, tools and development information. The result is Issues in NASA Program and Project Management.

The statements and opinions of the authors are their own, and do not represent official policy of NASA or of the U. S. Government. In fact, some viewpoints in this document will challenge those of other authors, encouraging a diversity of ideas and approaches for NASA managers, future managers and NASA alumni.

A few words about our authors and their offerings:

Deputy Administrator Dale D. Myers leads off this publication with a brief discussion of the Program Approval Document which served NASA so well in earlier years. He was NASA's Associate Administrator for Manned Space Flight from 1970 to 1974 and has since had a distinguished career in government and industry. James B. Odom shares the guiding management principles which he developed as Director of the Science and Engineering Directorate at Marshall Space Flight Center and NASA's Associate Administrator for Space Station. Aaron Cohen, Director since 1986 of the Lyndon B. Johnson Space Center in Houston, Texas, sets the stage with an overview of project management and the evolution of the matrix concept within the Johnson Space Center culture. He came to Johnson Space Center in 1962 and is recognized as one of NASA's premier program/project managers. Angelo Guastafarro, vice president of Lockheed Missiles and Space Co., Inc., and director of space station programs at the California corporation, had served 16 years for NASA at the Langley Research Center. After promotion as deputy manager of the Viking Project, he served as director of the planetary division of NASA's Office of Space Science and then as deputy director of the Ames Research Center for four years, until 1985. C. Thomas Newman, Assistant Deputy Administrator for NASA, presents a paper on controlling resources in the Apollo Program, in which he served as chief of resources control. He served also as deputy comptroller since 1977 and Comptroller since 1981. The late Homer Newell, former chief scientist for NASA, reflects upon the center/headquarters headaches, based upon his own experiences with the Goddard Space Flight Center in the early 1960's. He is author of *Beyond The Atmosphere* (1981) from which this article is excerpted. Jack Lee is deputy director of the Marshall Space Flight Center in Huntsville, Alabama. He writes about the evolution of the technical management organization at MSFC, zeroing in on the multinational Spacelab Program. Manny Peralta provides a broad overview of training and development initiatives for NASA program and project management workforce. He serves as Associate Administrator for Management in NASA's Office of Management after 30 years of industry experience in business, engineering and project management. William M. Lawbaugh, an associate professor of communications, also served as assistant editor of *Issues in NASA Program and Project Management*. Inquiries should be directed to Frank T. Hoban, program manager, Code ND, NASA Headquarters, Washington, DC 20546.