

FOREWORD

In early 1966, Dr. George E. Mueller, Associate Administrator for Manned Space Flight, directed his staff to undertake a comprehensive survey of the management and utilization of manned space flight computational resources. The results of the survey were to be used as the basis for increased management visibility of computer operations with an aim toward ascertaining that all possible means were being exercised to assure that manned space flight computers were doing the best job at the lowest possible cost. The purpose of this document, then, is to describe and explain how the manned space flight organization manages and utilizes its computer resources.

On February 28, 1966, Lt. Gen. Bogart met in Washington with those people from each of the Manned Space Flight Centers and Headquarters having significant responsibilities in computer management to discuss the project and describe the dimensions of the task. At this meeting, Lt. Gen. Bogart designated the Manned Space Flight Automatic Data Processing Resources Sharing Panel to be the key intercenter coordinating group for the project.

Shortly thereafter, at a meeting in New Orleans, it was determined that the task could most expeditiously be accomplished in-house and that the starting point would be the collection of a data base in the areas of computational capability, organization and staffing, and management techniques. Key personnel were designated at each Center to spearhead the study effort and, in conjunction with several key NASA Headquarters people, formed a Joint Action Group to prosecute the collection and analysis of information.

After the data had been collected, a full-time working team, designated by the Joint Action Group, met in Washington at intervals during the months of September and October 1966 to analyze the data and prepare the survey report. The Manned Space Flight Automatic Data Processing Resources Sharing Panel, with technical assistance from several consultants, reviewed the work of this group and endorsed the presentation.

In summary, this report describes and explains the manned space flight computer capabilities, organizations, staffing, and management techniques used to control these resources. The report also describes the role of the computer in manned space flight and identifies the individuals responsible for the various operating elements. Funding levels and cost trends are shown. Several management developments, such as Automatic Data Processing Workload Control and the Manned Space