



Aeronautics Technology Possibilities for 2000: Report of a Workshop

**Aeronautics and Space Engineering Board
Commission on Engineering and Technical Systems
National Research Council**

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Aeronautics Technology Possibilities for 2000: Report of a Workshop

Workshop on Aeronautical Technology: A Projection to the Year 2000
Aeronautics and Space Engineering Board
Commission on Engineering and Technical Systems
National Research Council

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AERONAUTICS TECHNOLOGY POSSIBILITIES FOR 2000

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PREFACE

At the request of the National Aeronautics and Space Administration, the National Research Council's Aeronautics and Space Engineering Board conducted a workshop in January 1984 to project what the state of knowledge of aeronautical technology could be in the year 2000 if necessary supporting resources were made available.

The study was intended to provide a basis for planning future aeronautical research and technology programs and identifying test facilities and capabilities needed to support the projected technology advancements. Some 80 experts participated in the study. They were organized into eight panels in the areas of aerodynamics; propulsion; structures; materials; guidance, navigation, and control; computer and information technology; human factors; and systems integration.

This document consists of three main parts: (1) an Introduction and Summary highlighting the principal findings of each panel, (2) the individual panel reports, and (3) an appendix containing panel recommendations regarding requirements for supporting research and facilities.

ACKNOWLEDGEMENT

Special recognition and thanks are due the following organizations and individuals for the excellent support provided to the chairman and participants of the workshop. Without their valuable assistance, willing cooperation, and warm hospitality, the task of the participants would have been far more difficult and much less productive.

Excellent facilities and equipment were provided the workshop by the University of Texas at Austin; the Joe C. Thompson Conference Center, University of Texas; and the School of Law of the University of Texas. These arrangements were made possible through the personal efforts of the following individuals from the University of Texas: Peter T. Flawn, President; Sam H. Hall, Assistant Dean, School of Law; Byron D. Tapley, Aeronautics and Space Engineering Board member and D. R. Woolrich Professor, Department of Aerospace Engineering, and by Glenn Greenwood, Conference Coordinator of the Joe C. Thompson Conference Center.

In addition, the workshop participants (including the chairman, panel leaders and members, rapporteurs and liaison representatives) are to be commended for their personal contributions and dedication to the task before, during, and after the workshop that made the study and this report possible.

Finally, it is important to recognize the personal contributions of the ASEB staff members and others who provided the highest level of administrative support during the organization and conduct of the workshop and in the subsequent completion of this report. Special thanks are due Marlene R. Veach and Julie A. Ferguson of the ASEB staff, and also to Delphine D. Glaze, Colleen Kelly, Chris Rowland, Vivian A. Scott, and Elaine Wheeler.

Aeronautics & Space Engineering Board