Foreword

This report contains a listing of the NASA Langley Research Center's scientific and technical research output for C.Y. 1994.

The intent of this report is to provide a greater awareness of the broad scope of results and the importance of the research and development work conducted by scientists and engineers at Langley. This current awareness is mandated by the National Aeronautics and Space Act of 1958, which provides for the widest practical dissemination of NASA research.

During C.Y. 1994, Langley's contributions to NASA and non-NASA literature included 132 NASA Formal Reports, 5 High-Numbered Conference Publications, 109 High-Numbered Technical Memorandums, 225 Contractor Reports, 368 Journal Articles and Other Publications, 499 Meeting Presentations, 9 Computer Programs, 90 Tech Briefs, 30 Patents, and 17 Special Documents. In addition, during the year, 10 conferences, symposia, and workshops were sponsored or cosponsored by Langley and held locally.

Barbara A. Pasternak
Assistant Chief, Scientific and Technical Information Division
Introduction

The NASA Langley Research Center is one of the Nation’s leading laboratories for research and development in the sciences of aeronautics and space technology. Langley conducts basic and applied research in fluid and flight mechanics, structures and materials, acoustics and noise reduction, measurement and instrumentation systems, numerical methods and techniques, data systems, electronics, physics, chemistry, and Earth and space sciences.

This publication is a compilation of Langley’s scientific and technical research output for 1994 which is processed through the Center's Scientific and Technical Information Division, an integral part of NASA's Agency-wide Scientific and Technical Information (STI) system. This document is intended as a reference summary for researchers and as a current awareness publication for the scientific, research, and academic community.

The results of Langley’s research are disseminated in a variety of NASA and non-NASA scientific and technical media and information systems. Details of the availability of the research references in this document are found in the section, “Availability,” on page vii.

The citations are grouped by the “Scientific and Technical Aerospace Reports” (STAR) subject categories and listed alphabetically by author or innovator. The Langley organization to which the senior author or innovator is assigned and the Research and Technology Objectives and Plans (RTOP) number are noted below citations when appropriate and included in the indexes.

Computer Programs listed are those which were submitted by Langley to COSMIC in 1994.

The NASA Tech Briefs cited were published in 1994 in “NASA Tech Briefs,” a journal for United States industry, entrepreneurs, and academia. Free subscriptions to this journal are available through the publisher, NASA Tech Briefs, 41 East 42nd Street, Suite 921, New York, New York 10017-5391 or by writing to the NASA Center for AeroSpace Information, Technology Transfer Office, P. O. Box 8757, Baltimore, Maryland 21240-0757.

Patents listed, which are owned in whole or in part by Langley Research Center personnel, have been published in issues of STAR, a NASA announcement journal for report literature. A subscription to STAR is available from the U.S. Government Printing Office (GPO) or from the NASA Center for AeroSpace Information (CASI).

Publication of some journal articles was not known at press time for the 1993 issue of this document. These articles are therefore listed in the 1994 issue.
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100 Melson, N. D.; Cannizzaro, F. E.; and von Lavante, E.: Multiblock, Multigrid Solution of Euler Equations. NASA Tech Brief LAR-14411.

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