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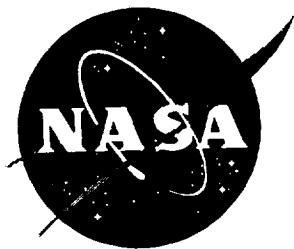
Third International Symposium on Magnetic Suspension Technology

Edited by
Nelson J. Groom and Colin P. Britcher

Proceedings of a symposium sponsored by the
National Aeronautics and Space Administration,
Washington, D.C., and held in
Tallahassee, Florida
December 13–15, 1995

July 1996





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Colin P. Britcher

Old Dominion University • Norfolk, Virginia

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National Aeronautics and Space Administration
Langley Research Center • Hampton, Virginia 23681-0001

July 1996



INTRODUCTION

The 3rd International Symposium on Magnetic Suspension Technology was held at The Holiday Inn Capital Plaza in Tallahassee, Florida on December 13-15, 1995. The symposium was sponsored by the Guidance and Control Branch of the Langley Research Center in coordination with NASA Headquarters and was hosted by the National High Magnetic Field Laboratory (NHMFL) operated by Florida State University. The symposium was chaired by the following people:

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The goal of the symposium was to examine the state of technology of all areas of magnetic suspension and to review recent developments in sensors, controls, superconducting magnet technology, and design/implementation practices. The symposium included 19 sessions in which a total of 55 papers were presented. The technical sessions covered the areas of bearings, superconductivity, vibration isolation, maglev, controls, space applications, general applications, bearing/actuator design, modelling, precision applications, electromagnetic launch & hypersonic maglev, applications of superconductivity, and sensors. A list of attendees begins on page xv.

The first symposium in this series was organized by NASA Langley Research Center and held at Langley Research Center, Hampton, Virginia on August 19-23, 1991. The proceedings of the first symposium are available as NASA Conference Publication 3152, Parts 1 and 2. The second symposium in the series, also organized by NASA Langley Research Center, was held at the Westin Hotel in Seattle, Washington on August 11-13,

Research Center, was held at the Westin Hotel in Seattle, Washington on August 11-13, 1993. The proceedings of the second symposium are available as NASA Conference Publication 3247, Parts 1 and 2.

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PART 1

Session 1 -- Bearings 1

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