A 65-METER TELESCOPE FOR MILLIMETER WAVELENGTHS

J.W. FINDLAY
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NATIONAL RADIO ASTRONOMY OBSERVATORY

CHARLOTTESVILLE VIRGINIA

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A 65-METER TELESCOPE FOR MILLIMETER WAVELENGTHS

J. W. Findlay
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The report of a design study made by the National Radio Astronomy Observatory.

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PREFACE

The work which is described in this report has been done by a group of scientists and engineers at the National Radio Astronomy Observatory*. The names of two members of that group have been used as authors in order that the report may be easily referenced. As the report shows, a considerable amount of the work has been carried out by engineering companies working with the design group. We wish to acknowledge all contributors to the design, and so we list them below.

<table>
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* The National Radio Astronomy Observatory is operated by Associated Universities, Inc., under contract with the National Science Foundation.

† Mr. O. Heine of the Systems Development Laboratory has worked throughout the design as a member of the design group. He has had Dr. W. Blythe and Mr. J. Muradliyan associated with him in his design work.
In the course of this work we have learned much from discussions with many others experienced in antenna design. One example has been with the staff at the Max-Planck-Institut für Radioastronomie in Bonn. A parallel design study has been carried out by that group; we have exchanged many design details with them and with their associated engineers from Krupp, MAN and Siemens. Similarly, we have benefited from meetings with the members of the antenna group at the Jet Propulsion Laboratory. In recognizing this assistance, for which we are most grateful, we must emphasize that the design presented here is our own, and we do not imply that it has the approval of those whose help we acknowledge.

May we conclude with two expressions of hope? First, that the work reported here may prove to be acceptable to all those who practice the art of using the tools of radio astronomy and, second, that sometime such a radio telescope will be built for them to use.

J. W. Findlay
S. von Hoerner