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SPECIAL TRANSPORTATION SCIENCE ISSUE

IN RECENT years the amount of scientific research being devoted to traffic and transportation problems has been growing at a rapid rate as have the number and urgency of the problems to be solved. A good deal of the professional support for this work has come from the OPERATIONS RESEARCH SOCIETY OF AMERICA and its journal. By encouraging the publication of theoretical and experimental findings in traffic and transportation research, Editors THORNTON PAGE, GEORGE SHORTLEY, and THOMAS CAYWOOD have provided an important impetus to the growth and development of these fields. Thus, the SOCIETY became a national professional organization for transportation scientists, and *Operations Research* has become their principal journal.

To strengthen this relation and to stimulate still further the growth of scientific research on transportation problems, approximately one hundred interested members of ORSA met on May 10, 1962 at the Tenth Anniversary Meeting and organized the first topical and first national section of the Society, the Transportation Science Section. Since that time this section has held five technical meetings; a total of more than thirty papers have been presented covering a wide variety of transportation problems and methodologies applicable to their solution.

In addition to these technical sessions, business meetings have been held semiannually to consider professional needs of members of the section. One of the most important questions was that of publication. Was there a need for a new journal to publish the increasing number of scientific papers? At the October 1962 Philadelphia Meeting of the SOCIETY, GORDON F. NEWELL was appointed by ROBERT HERMAN to be chairman of an ad hoc committee to investigate publication needs and recommend a publication policy for the Transportation Science Section. His report of May 27, 1963 considered several possibilities; one recommended that a special issue of the parent journal be devoted to transportation papers as a first step in exploring the need for a regular supplement or a new journal. A natural outgrowth of such an issue would be a more accurate determination of the true publication needs of authors actively engaged in the field. This publication recommendation was adopted by the Publications Committee under its chairman, ROBERT MACHOL, and an Editorial Committee was established to handle the special issue under the chairmanship of ROBERT M. OLIVER, who also served as editor for this special issue.

In the twelve articles that are included in this volume, the largest number deal with delays and congestion characteristics of four-arm intersections (KLEINECKE; GAZIS), merging intersections (EVANS-HERMAN-WEISS; JEWELL), vehicular-controlled intersections (DUNNE-POTTS; DARROCH-NEWELL-MORRIS), and the

control of a sequence of synchronized signals (MORGAN-LITTLE). The remaining papers include the results of bus-following experiments (ROTHERY-SILVER-HERMAN-TORNER), the flow reduction aspects of removing arcs in a transportation network (WOLLMER), the economic justification for establishing runway service priorities in an air traffic control system (PESTALOZZI), the mathematical characteristics of two traffic systems whose service times increase with their occupancy (HELLY), and the distribution of certain measures of travel in a circular city (HAIGHT). The bibliography by Haight lists papers, periodicals and books published prior to November 1963.