

DRIVING PRACTICE AND ITS RELATION TO HIGHWAY CAPACITY

A SYMPOSIUM

BY THE DIVISION OF HIGHWAY TRANSPORT

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INTRODUCTION

Highways cannot be designed for static conditions; they must provide for moving traffic. Adequate design for this dynamic condition can only be based on the actual driving practices to be expected on our highways, as demonstrated by the countless individual drivers governing their movements in accordance with their individual idiosyncrasies, and subject only to a minimum of control. To analyze these individual practices and to integrate them into a pattern from which reasonable and economical design standards may be drawn are the purposes of intensive studies of driving practices and vehicle behavior, conducted over the past few years by the Public Roads Administration with the cooperation of various State and non-governmental agencies.

Analysis of the complex nature of driving practices requires the break-down of the studies into a number of independent, yet closely related parts. Each portion, or individual study, was designed to provide specific information regarding some particular feature of driving practice. Briefly, one series of studies undertook to determine for various surface and roadside conditions the transverse positioning of vehicles on the pavement. A second series dealt particularly with the distribution of vehicle speeds and longitudinal spacings, and their variation with changes in road and traffic conditions. Another phase was concerned with the practice followed in passing under a wide variety of conditions to show not only the physical measurements of time and space involved in such maneuvers, but also the number and type of maneuver that may be expected under any given conditions. Still another analyzed the effect of grades on all driving practices, with particular reference to commercial vehicles.

The work in all these individual phases is well advanced. The discussions which follow will reveal particularly the results now being obtained from the independent analyses, but will also serve to show how the results of the several phases may be integrated as necessary to solve whatever complex problem may be presented. The first of these discussions relates to the analysis of transverse placements, with particular reference to the influence of bridge widths on the transverse positions of vehicles.