

1995 Truck Size & Weight
Performance-Based Workshop Report

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The primary objectives of the U.S. Department of Transportation's Comprehensive Truck Size and Weight (TS&W) Study are to:

- assess the potential economic, safety, and environmental impacts of changing existing TS&W limits; and
- identify opportunities to increase the efficiency of freight transportation while preserving safety and highway infrastructure.

Reports which have been completed for the TS&W Study, to date, include the following:

- (1) Synthesis of Truck Size and Weight Studies and Issues
- (2) Analysis of the Truck Inventory and Use Survey from the Truck Size and Weight Perspective for Trucks with Five-Axles or More
- (3) Truck Size and Weight Modelling Workshop
- (4) Truck Size and Weight Performance-Based Workshop
- (5) Western U.S.-Canada Crossborder Case Study.

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This document was prepared for use in the U.S. Department of Transportation's Comprehensive Truck Size and Weight Study. The views expressed are those of the author(s) and are not necessarily those of the U.S. Department of Transportation.

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1.0 Introduction

This is a summary of a workshop on performance-based regulations for truck size and weight (TS&W) organized by the U.S. Department of Transportation's (US DOT) Federal Highway Administration (FHWA). The workshop was held on June 30, 1995, at the Chrysler Center in Ann Arbor, Michigan, on the day after the Fourth International Symposium on Heavy Vehicle Weights & Dimensions.

This is not a verbatim record of the proceedings. Rather, this account follows the discussion as it happened with explanations, definitions, and examples added for clarity.

1.1 Outline

There were three keynote speakers in the morning session as follows:

- Robert Clarke, National Highway Traffic Safety Administration of the US DOT, set the stage by outlining one approach to performance-based regulations. This approach is described in the section entitled “**Implementation of Performance-Based Size and Weight Limits.**”
- Peter Sweatman, Roaduser Research, Australia, discussed vehicle stability and control issues related to performance-based standards. His remarks are summarized in the section entitled, “**Vehicle Stability and Control.**”
- Kit Mitchell, formerly of Transport Research Laboratory, U.K., looked at the interaction of heavy vehicles and pavements and his discussion is summarized in the section entitled “**Vehicle-Pavement Interaction.**”

The afternoon of the workshop consisted of three breakout sessions, each led by a keynote speaker. These are described immediately after the summary of the keynote speeches in the above-mentioned sections. There was insufficient time for the workshop to develop conclusions as such; nevertheless, a summary interpretation of the day's discussion is provided in the last section of this report.

1.2 Purpose and Goals

Chris Winkler, University of Michigan Transportation Research Institute (UMTRI), opened the workshop with two questions:

- What aspects of performance should be regulated?
- What performance can be regulated?

The first question raises the issue of the scope of performance-based regulations. Do they only cover the technical and in-use operational aspects of vehicle performance and vehicle operation; or, do they also attempt to address political, economic, and social considerations? Winkler's second question raises the issue of implementation. "How can performance-based regulations be enforced? How would they fit within the existing structure of state and Federal regulations? And, how do we change from the existing system?" These are all questions which Winkler indicated must be addressed if performance-based standards are to become a reality.