



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

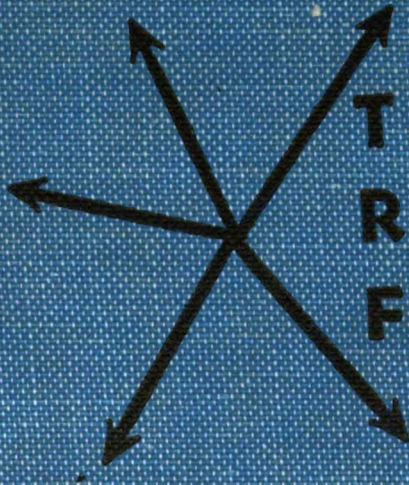
*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*

**B** 1,512,860

**Papers —**

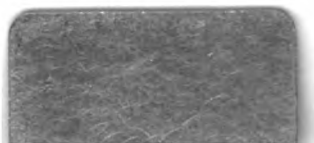
**Eighth Annual Meeting**

**1967**



**TRANSPORTATION RESEARCH FORUM**

Generated at University of Minnesota on 2021-09-23 17:28 GMT / <https://hdl.handle.net/2027/mdp.39015057099023> / [https://www.hathitrust.org/access\\_use#cc-by-nc-nd-4.0](https://www.hathitrust.org/access_use#cc-by-nc-nd-4.0)  
Creative Commons Attribution-NonCommercial-NoDerivatives / [http://www.hathitrust.org/access\\_use#cc-by-nc-nd-4.0](http://www.hathitrust.org/access_use#cc-by-nc-nd-4.0)



# DONALD E. CLEVELAND

Generated at University of Minnesota on 2021-09-23 17:28 GMT / <https://hdl.handle.net/2027/mdp.39015057099023>  
Creative Commons Attribution-NonCommercial-NoDerivatives / [http://www.hathitrust.org/access\\_use#cc-by-nc-nd-4.0](http://www.hathitrust.org/access_use#cc-by-nc-nd-4.0)

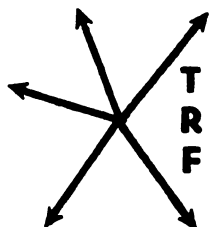
**Papers —**

# **Eighth Annual Meeting**

**“Man & Transportation”**

***September 6-9, 1967***

***Montreal, Quebec, Canada***



**TRANSPORTATION RESEARCH FORUM**

Ummu  
HE  
152  
A52  
v. 8  
Behr

**Copyright**

**1967**

**The Transportation Research Forum**

*For additional copies write:*

**Grant C. Vietsch  
163 East Walton Street  
Chicago, Illinois 60611**

**Price \$9.00 per copy**

**The Richard B. Cross Company  
Oxford, Indiana**

1mmu  
Gift  
9/24/03

# Statement of Purpose

The Transportation Research Foun is a joint endeavor of interested persons in academic life, government service, business logistics, and the various modes of transportation. The Forum's purpose is to provide a common meeting ground or forum for the discussion of ideas and research techniques applicable to economic, management and public policy problems involving transportation.

## Officers 1967-68

### *President*

DAVID L. GLICKMAN  
111 Eighth Avenue  
New York, New York 10011

### *Academic Vice President*

GEORGE W. WILSON  
Indiana University  
Bloomington, Indiana 47405

### *Executive Vice President*

DONALD P. MACKINNON  
P.O. Box 3100  
Montreal 3, Quebec, Canada

### *Industrial Vice President*

DONALD J. BOWERSOX  
E. F. MacDonald Stamp Co.  
Dayton, Ohio 45402

### *Secretary*

HENRY A. FAHL  
P.O. Box 3600  
Akron, Ohio 44310

### *Membership Vice President*

DONALD L. LOFTUS  
526 Mission Street  
San Francisco, California 94105

### *Treasurer*

JOHN W. INGRAM  
135 East 11th Place  
Chicago, Illinois 60605

### *Public Relations Vice President*

RAY R. COPE  
Hunter Building  
Ottawa, Ontario, Canada

### *Publications Vice President*

GRANT C. VIETSCH  
163 East Walton Street  
Chicago, Illinois 60611

# Table of Contents

## FOREWORD

<i>Donald P. MacKinnon</i> .....	I
----------------------------------	---

## **THE IMPACT OF CONTAINERIZATION ON OCEAN TRANSPORTATION**

### IMPACT OF CONTAINERIZATION ON OCEAN TRANSPORTATION: DIMENSIONS OF THE PROBLEM

<i>Gayton E. Germane</i> .....	1
--------------------------------	---

### THE PORT DIRECTOR'S VIEW OF THE IMPORTANCE OF RESEARCH INTO FLOW OF SEA-BORNE TRAFFIC

<i>Dudley Perkins</i> .....	21
-----------------------------	----

### THE IMPACT OF CONTAINER STANDARDS ON INTEGRATED TRANSPORTATION

<i>Fred Muller, Jr.</i> .....	29
-------------------------------	----

### IMPACT OF CONTAINERIZATION ON PORT PLANNING

<i>Frederick Fontanella</i> .....	35
-----------------------------------	----

## **FUTURE OF THE AIR PASSENGER INDUSTRY**

### THE CONCORDE SUPERSONIC AND ITS IMPACT ON FUTURE AIRLINE OPERATIONS

<i>E. H. Burgess, M.B.E., D.F.C.</i> .....	39
--	----

### THE PROSPECT OF V/STOL AIRCRAFT IN FUTURE AIRLINE OPERATIONS

<i>P. Y. Davoud and W. T. Heaslop</i> .....	55
---	----

## **URBAN TRANSPORTATION SYSTEMS**

### TRANSPORTATION SYSTEMS PLANNING AS A PROCESS

<i>H. W. Bruck, Marvin L. Manheim and Paul W. Shuldiner</i> .....	67
---	----

### THE TECHNOLOGY OF EVOLUTIONARY TRANSIT

<i>Sumner Myers</i> .....	99
---------------------------	----

<b>TOWARD A COMPREHENSIVE SYSTEMS ANALYSIS FOR TRANSPORTATION PLANNING: AN URBAN EXAMPLE</b>	
<i>Richard de Neuville</i> .....	109

<b>CARS: COMPUTER AIDED ROUTING SYSTEM</b>	
<i>Nigel H. M. Wilson and Dantel Roos</i> .....	129

**“AUTOMATION” WITHIN RAILWAY INDUSTRY**

<b>AN OVERVIEW OF RAILROAD AUTOMATION</b>	
<i>William J. Dixon</i> .....	141

<b>AUTOMATION OF RAILROAD OPERATIONS</b>	
<i>C. D. Howell</i> .....	149

<b>COMMUNICATIONS REQUIREMENTS FOR AUTOMATED SYSTEMS IN RAIL TRANSPORTATION</b>	
<i>Robert J. Maher</i> .....	155

**SHORT-RANGE TRENDS AND THEIR EFFECTS  
ON TRUCKING TRANSPORTATION**

<b>THE CHANGING ROLE OF THE HIGHWAY RESEARCH BOARD</b>	
<i>W. N. Carey, Jr.</i> .....	163

<b>IMPLICATIONS OF MODERN HIGHWAY DESIGN ON TRUCK TRANSPORTATION</b>	
<i>S. M. Breuning, John Clarkeson and Thomas N. Harvey</i> .....	171

<b>HIGHWAY EQUIPMENT INNOVATION FOR IMPROVED PUBLIC SERVICE AND CARRIER PROFITS</b>	
<i>Robert S. Reebie</i> .....	181

<b>FORECAST OF TRUCK POWERPLANT DEVELOPMENTS</b>	
<i>Niels J. Beck</i> .....	195

**“AUTOMATION” WITHIN RAILWAY INDUSTRY**

<b>A SUPPLIER LOOKS AT RAILWAY AUTOMATION</b>	
<i>Samuel H. Levinson</i> .....	209

<b>AN ASSESSMENT OF RAILROADS’ APPROACH TO MANAGEMENT INFORMATION SYSTEMS</b>	
<i>Grant C. Vietsch</i> .....	217

AUTOMATIC FARE COLLECTION SYSTEMS <i>C. William Hamilton and Frederick A. Koomanoff</i> .....	223
--	-----

RAILROAD ENGINEERING DEPARTMENTS WITHIN A CLIMATE OF CHANGE <i>Vincent J. Roggeveen</i> .....	235
---	-----

**SHORT-RANGE TRENDS AND THEIR EFFECTS  
ON TRUCKING TRANSPORTATION**

SIZE AND WEIGHT REGULATION <i>Eric A. Mohr</i> .....	245
---	-----

THE IMPLICATIONS OF TRUCK SIZE AND WEIGHT REGULATIONS <i>Allan C. Flott</i> .....	253
---	-----

SOME IMPLICATIONS OF MOTOR VEHICLE SIZE AND WEIGHT REGULATIONS <i>Robley Winfrey</i> .....	261
--	-----

EUROPEAN INTERSTATE MOTOR TRANSPORT PROBLEMS AND IMPLICATIONS OF SIZE AND WEIGHT REGULATIONS <i>Dr. Georg M. Precht</i> .....	273
---	-----

**HIGH SPEED INTERCITY GROUND TRANSPORT**

A PROGRESS REPORT ON HIGH SPEED GROUND TRANSPORTATION (R&D) <i>Edward J. Ward</i> .....	297
---	-----

A METHODOLOGY FOR STUDYING HIGH SPEED GROUND TRANSPORTATION SYSTEMS <i>E. S. Diamant, Ph.D.</i> .....	311
---	-----

THE TRACKED HOVERCRAFT SYSTEM OF HIGH SPEED LAND TRANSPORT <i>D. S. Bliss</i> .....	333
---	-----

DEFINING TRANSPORTATION OBJECTIVES: THE ROLE OF HIGH SPEED GROUND TRANSPORTATION <i>Edward K. Morlok and H. W. Bruck</i> .....	361
--	-----

**THE FUTURE OF PIPELINING SOLIDS**

OUTLOOK FOR PIPELINING SOLIDS <i>Peter J. Manno</i> .....	379
--	-----

<b>PROSPECTS FOR SOLIDS PIPELINING IN CANADA TODAY</b> <i>F. E. Parkinson, P. Eng.</i> .....	397
---	-----

<b>CAPSULE PIPELINING – A CHALLENGE TO CANADIAN INITIATIVE</b> <i>H. S. Ellis and R. T. Liddle</i> .....	411
---	-----

<b>THE ECONOMIC PROSPECTS FOR SOLIDS PIPELINES IN LIEU OF NEW RAIL BRANCH LINE CONSTRUCTION</b> <i>J. H. D. Sturgess and J. D. Weldon</i> .....	421
--	-----

**SHORT-RANGE TRENDS AND THEIR EFFECTS  
ON TRUCKING TRANSPORTATION**

<b>REVIEW OF CONGRESSIONAL POLICY ON TRUCKING COORDINATION</b> <i>Stanton P. Sender</i> .....	431
--	-----

<b>REQUIREMENT FOR EFFECTIVE RAIL-TRUCK COORDINATION</b> <i>C. P. Dirckx</i> .....	447
---	-----

<b>MULTI-MODAL OWNERSHIP IN TRANSPORTATION</b> <i>W. J. Stenason</i> .....	469
---	-----

<b>SOME REASONS WHY INDUSTRIAL FIRMS EMPLOY PRIVATE MOTOR CARRIAGE</b> <i>William L. Fayle</i> .....	477
---	-----

**HIGH SPEED INTERCITY GROUND TRANSPORT**

<b>ECONOMIC CONSIDERATIONS FOR INTERCITY HIGH SPEED GROUND TRANSPORT SYSTEMS</b> <i>Ely M. Brandes and Alan E. Lazar</i> .....	483
---	-----

<b>MODELS FOR DETERMINING INDIRECT IMPACTS OF HIGH SPEED GROUND TRANSPORTATION SYSTEMS: NORTHEAST CORRIDOR</b> <i>Stephen H. Putnam</i> .....	489
--	-----

<b>THE ROLE OF COST IN GROUND TRANSPORTATION PLANNING</b> <i>Stuart G. Schmid</i> .....	507
--	-----

Generated at University of Minnesota on 2021-09-23 17:28 GMT / https://hdl.handle.net/2027/mdp.390150570999023 / http://www.hathitrust.org/access\_use#cc-by-nc-nd-4.0  
Creative Commons Attribution-NonCommercial-NoDerivatives / http://www.hathitrust.org/access\_use#cc-by-nc-nd-4.0