

STUDY COMMITTEE

BIOGRAPHICAL INFORMATION

ARDEN L. BEMENT, JR., *Chairman*, is Basil S. Turner Distinguished Professor of Engineering at Purdue University and Director of the Midwest Superconductivity Consortium. He was Vice President for Technical Resources at TRW, Inc., from 1980 to 1988. Earlier, he was Deputy Undersecretary of Defense for Research and Engineering and Director of the Materials Science Office, Defense Advanced Projects Agency. He previously served as Professor of Nuclear Materials at Massachusetts Institute of Technology and manager of the fuels and materials and metallurgy research departments at Battelle Northwest Laboratories. He is a Fellow of the American Society for Metals International, the American Nuclear Society, and the American Institute of Chemists. Dr. Bement has chaired and served on several National Research Council committees and is a member of the National Academy of Engineering.

HERBERT H. RICHARDSON, *Vice Chairman*, is Director of the Texas Transportation Institute and Associate Vice Chancellor for Engineering for the Texas A&M University System, where he also is Regents Professor and Distinguished Professor of Engineering. He previously served as Chancellor of the Texas A&M University System. Before joining Texas A&M in 1984, he was Associate Dean of Engineering and head of the Mechanical Engineering Department at Massachusetts Institute of Technology. He also was the first Chief Scientist for the U.S. Department of Transportation. He has served on numerous TRB and National Research Council committees and is a past Chairman of the TRB Executive Committee. Dr. Richardson is an Honorary Member of the American Society of Mechanical Engineers and a member of the National Academy of Engineering.

LAWRENCE D. DAHMS is Executive Director of the Metropolitan Transportation Commission of the San Francisco Bay Area. Before joining the Commission in 1978, he was Deputy Director of the California Department of Transportation, and he held numerous positions in the Bay Area Rapid Transit District, including Director of Planning and Marketing, Assistant General Manager of Opera-

tions, and Acting General Manager. Mr. Dahms is a past Chairman of ITS America. He has served as Chairman of the TRB Executive Committee and on numerous TRB and National Research Council committees.

THOMAS B. DEEN is a transportation consultant and former Executive Director of TRB (a position he held from 1980 to 1994). He is former Chairman and President of PRC-Voorhees, a transportation engineering and planning consulting firm with clients worldwide. During the early 1960s, he served as Chief Planner for the design of the Washington, D.C., metropolitan rail transit system. He was Chairman of the Strategic Planning Committee of ITS America, and he is active in the Institute of Transportation Engineers and other transportation engineering organizations. Mr. Deen is a member of the National Academy of Engineering.

JOHN J. FEARNSIDES is Senior Vice President and General Manager at the MITRE Corporation and Director of its Center for Advanced Aviation System Development, which is responsible for aviation and air traffic control research and engineering for the Federal Aviation Administration. Before joining MITRE, he held various positions at the U.S. Department of Transportation, including Deputy Undersecretary, Chief Scientist, Acting Assistant Secretary for Policy, and Acting Administrator of the Research and Special Programs Administration. Dr. Fearnside has served on several Research Council committees and on the Board of ITS America.

MICHAEL M. FINKELSTEIN is principal of Michael Finkelstein & Associates. He previously served as Associate Administrator for R&D, Rulemaking, and Planning and Evaluation for the National Highway Traffic Safety Administration (NHTSA). He also served as Chief of the Highway and Mass Transit Program Division in the Office of the Secretary of Transportation. Mr. Finkelstein received the Gold Medal for Outstanding Achievement from DOT and a Special Award for Appreciation from NHTSA. He is Chairman of the TRB Committee on Transportation Safety Management.

THOMAS D. LARSON is a transportation consultant and former Administrator for the Federal Highway Administration, serving from 1989 to 1993. He served as Secretary of Transportation for the Commonwealth of Pennsylvania from 1979 to 1987. Before entering the government, he was Institute Professor of Civil Engineering at Pennsylvania State University and Director of the Pennsylvania Transportation Institute. Dr. Larson is a past Chairman of the TRB Executive Committee and the Strategic Highway Research Program Executive Committee and served as President of American Association of State Highway and Transportation Officials. Dr. Larson is a member of the National Academy of Engineering.

NANCY G. LEVESON is Hunsaker Visiting Professor of Aeronautical Information Engineering at the Massachusetts Institute of Technology and Boeing Professor of Computer Science at the University of Washington. Her work has focused on building software for real-time systems where failures can result in loss of life or property. Dr. Leveson is a member of the Commission on Engineering and Technical Systems (CETS) of the National Research Council. She has served on several CETS committees; she chaired the Study of the Space Shuttle Software Process and was a member of the CETS study committee on Computers in Nuclear Power Plants. She is a Fellow of the Association for Computing Machinery and was awarded the 1995 American Institute of Aeronautics and Astronautics Information Systems Award.

JOHN E. MAJOR is Executive Vice President, and President of Infrastructure Products, QUALCOMM, Incorporated. Before joining QUALCOMM in 1997, he was Senior Vice President and Chief Technology Officer for Motorola. He led Motorola's efforts to become a global leader in software development and managed the Worldwide Systems Group that developed and manufactured private radio systems for voice and data communications. Mr. Major is chairman of the Electronics Industry Association and a member of the Computer Science and Telecommunications Board of the National Research Council.

ROBERTA J. NICHOLS is a transportation fuels consultant, recently retired from Ford Motor Company. At Ford, she was Manager of the Electric Vehicle External Strategy and Planning Department, Manager of Electric Vehicle External Affairs, and Manager of the Alternative Fuels Department. Before joining Ford, she was a member of the technical staff of the Aerospace Corporation. She is a Fellow of the Society of Automotive Engineers and a Senior Member of the Society of Women Engineers. She has chaired TRB's Alternative Transportation Fuels Committee and serves on other Research Council panels, including the CETS Committee on the Advanced Automotive Technologies Plan. Dr. Nichols is a member of the National Academy of Engineering.

JEROME G. RIVARD is President of Global Technology and Business Development, Harrison Township, Michigan. From 1986 to 1988, he was Vice President and Group Executive, Bendix Electronics, a division of Allied Signal, Inc. He has held several positions in divisions of the Bendix Company, including the Vehicle Controls Department, the Automotive Advanced Concepts Program, the Electronic Fuel Injection Division, and the Engineering Group. He previously worked for Ford Motor Company as Chief Engineer of the Electrical and Electronics Division. Earlier in his career, Mr. Rivard worked for the U.S. Army Ballistic Missile Agency and Vicker, Inc. He is a

Fellow of the Society of Automotive Engineers and the Institute of Electrical and Electronic Engineers. Mr. Rivard is a member of the National Academy of Engineering.

DANIEL ROOS is Associate Dean of Engineering Systems at Massachusetts Institute of Technology. He also is Professor of Civil and Environmental Engineering at MIT; from 1978 to 1985, he was Director of the Center for Transportation Studies. He also directed the Institute's International Motor Vehicle Program and Center for Technology, Policy, and Industrial Development. Dr. Roos served as chairman of the TRB Committee to Assess Advanced Vehicle and Highway Technologies. He received the Frank M. Masters Transportation Engineering Award from the American Society of Civil Engineers in 1989.

WAYNE SHACKELFORD is Commissioner of the Georgia Department of Transportation. In this capacity, one of his accomplishments was the development and operation of the Department's transportation management programs during the 1996 Olympic Summer Games in Atlanta. He is a past president of AASHTO and Past President of the Southeastern Association of State Highway and Transportation Officials. He recently served as Chairman of ITS America. Mr. Shackelford has been active in TRB's Strategic Highway Research Program; he also is a member of the TRB Executive Committee and is its 1998 Vice Chairman.

THOMAS B. SHERIDAN is Ford Professor of Engineering in the Department of Mechanical Engineering and Department of Aeronautics and Astronautics at Massachusetts Institute of Technology. His expertise is in human factors, including modeling and design of human-machine systems for automobile driving, aviation, and other modes of transportation. He is a Fellow of the Institute of Electrical and Electronics Engineering and the Human Factors Society. He has served on committees for the National Research Council, the National Institutes of Health, the National Aeronautics and Space Administration, and the National Science Foundation. Dr. Sheridan is a member of the National Academy of Engineering.

DAVID N. WORMLEY is Dean of Engineering at Pennsylvania State University. Previously he was Professor of Mechanical Engineering at Massachusetts Institute of Technology, where he also served as Associate Dean of Engineering. His research focuses on the dynamic analysis and design of advanced control systems for transportation and other applications. He serves on the editorial board of the *International Journal of Vehicle Mechanics and Mobility*. Dr. Wormley was the 1997 Chairman of the TRB Executive Committee.