STEVEN R. DITMEYER
7611 RIDGECREST DRIVE
ALEXANDRIA, VIRGINIA 22308

Phone: 703-768-5540
Cell phone: 703-980-0073
Email: SRDitmeyer@alum.mit.edu, SRDit@aol.com

SUMMARY

Extensive career in transportation. In the private sector, worked for six railroads and a railroad equipment manufacturer. In the public sector, served as an Army Transportation Corps officer, a federal civil servant, and an international civil servant. Career has cut across multiple disciplines, including freight and passenger transportation, engineering, economics, research and development, policy, marketing, management, operations, information technology, and education. Interests include installation of network-centric systems (digital communications, positioning systems, computers, and sensors) on the various modes of transportation to enhance their safety, security, capacity, efficiency, and profitability.

EXPERIENCE

Principal, Transportation Technology and Economics, 2007-date
Performing consulting services for organizations dealing with technical and economic issues in various modes of transportation. Projects included: providing advice to the California Public Utilities Commission regarding the installation of Positive Train Control on Metrolink and Caltrain; assisting a medical services provider in determining the Railroad Retirement Board's requirements for physical examinations in connection with disability claims; participating on a Booz Allen team supporting the US Central Command with the preparation of the Afghanistan National Rail Plan; serving on the Eno Center for Transportation's NextGen Working Group for the establishment of a new organization with bonding authority to take over the responsibility for air traffic control in the US from the Federal Aviation Administration; and serving on the American Public Transportation Association's peer review panel reviewing control center issues on Washington Metro.

Michigan State University, Eli Broad College of Business, Railway Management Program, Adjunct Professor, 2007-2015
Developing curriculum and syllabi for a four-week Certificate Course in Railway Management for promising mid-level railway managers. Teaching classes in the fundamentals of transportation and railways, including economic and safety regulatory issues; railway infrastructure, rolling stock, and command and control; working with customers and financial stakeholders; and government relations, management issues, and leadership development. Also served as Adjunct Lecturer with the International Railway Strategic Management Institute in Paris in 2007 and 2012, in Vadodara, India, in 2010, and in Lyon, France, in 2013.

Industrial College of the Armed Forces, National Defense University
Department of Transportation Faculty Chair, Associate Professor of Economics, 2003-2007
Taught courses in microeconomics, macroeconomics, transportation economics, and the North Africa and Mid-East region to senior military officers and civil servants. Leader of the Transportation Industry Study that examined domestic and foreign freight and passenger transportation and all the principal modes – aviation, ocean shipping, ports, trucking, highways, railroads, inland waterways, pipelines, and transit – that comprise the transportation network. The Transportation Industry Study addressed issues that cut across all the modes, such as economics, operations, technology, systems, infrastructure, regulations, leadership, institutions, finance, safety, security, congestion, and intermodalism. Made the connection between DoD's doctrine of Network-Centric Warfare and the application of network-centric systems to transportation.

Federal Railroad Administration, Director, Office of Research and Development, 1995-2003
Directed an R&D program covering a broad range of topics: system safety and security, human factors, rolling stock and components, track and structures, track-train interaction, train control, grade crossings, hazardous materials, and protection of train occupants; oversaw the operation of, and conducted research and testing at, the Transportation Technology Center at Pueblo, Colorado; oversaw FRA's Y2K preparedness activities with the railroad industry; served as program sponsor for the Nationwide Differential GPS network, a joint project with the US Coast Guard; and oversaw the development of a Five-Year Strategic Plan for FRA R&D. Supervised a staff of 20 with an annual budget of $25 million. Served as a member of the ITS Strategic Planning Group, the DOT Positioning/Navigation Executive Committee, the DOT Research and Technology Coordinating Council, and the GPS Senior Steering Group. Sponsored the TRB Committee to Review FRA's Research, Development, and Demonstrations Program.

Morrison Knudsen Corporation, Locomotive Division, Vice President – Marketing and Business Development, 1993-1995
Marketed new high-horsepower and alternative fuel locomotives to railroads along with the company's traditional products, remanufactured freight and commuter locomotives; oversaw the provision of locomotives and maintenance services to the Utah Railway, Mexican Railways, and BNSF; following the division's spin off and restructuring into MK Rail, served as Vice President – Strategic Planning and also oversaw the assembly of Iron Highway roll-on, roll-off intermodal trainsets for client CSX. Size of staff supervised and of budget varied as projects were initiated and completed.

Burlington Northern Railroad, Director – Research and Development, 1981-1993, and Chief Engineer – Telecommunications and Control Systems 1986-1992
Established the R&D department and oversaw the development of the first communications-based train control system (ARES), natural gas-fueled locomotives, locomotive health monitoring, acoustic bearing detectors, and automatic equipment identification. A Harvard Business School case study was written about the ARES program. Managed BN's telecommunications network, one of the largest non-common carrier systems in the US; oversaw the development of BN's Communications Network Control Center and the deployment of a digital communications network; managed BN's consulting activities with the railroads in

Swaziland, Malawi, and Mozambique for USAID in 1991 and 1992. Supervised an R&D staff of 6 with an annual budget of $6 million, and a telecommunications staff of 400 with an annual budget of $50 million. Served as BN's representative on the AAR Research Committee.

Federal Railroad Administration, Associate Administrator for Research and Development, 1980-1981
Managed FRA's R&D program and oversaw the writing and publishing of "Railroad Freight Traffic Flows 1990," the first commodity-specific, route-specific econometric forecast of railroad freight traffic flows; oversaw a program to develop a full-motion-base locomotive simulator for human factors research; headed a mission on behalf of the US-Saudi Joint Economic Commission to establish an FRA technical assistance team to advise the Saudi Government Railroad Organization on railroad investment priorities. Supervised a staff of 50 and a budget of $40 million.

The Alaska Railroad, Acting General Manager, 1979-1980
Managed all aspects of the railroad's freight, passenger, intermodal, and river barge operations. Responsibilities included marketing and pricing, customer relations, human resources, acquisition, relations with state and local governments and native corporations, and service and rate coordination with ocean shipping lines and trucking companies. Negotiated and filed the first contract rates with the Interstate Commerce Commission. Reduced the operational deficit and initiated the sale of the railroad to the State of Alaska. Supervised a staff of 400 and an annual operating budget of $25 million.

Federal Railroad Administration, Associate Administrator for Policy, 1977-1979
Oversaw studies on the health of the railroad industry, co-authored "A Prospectus for Change in the Freight Railroad Industry," conducted hearings around the country on the recommendations in the report, met with newspaper editorial boards to get them to recognize the railroad industry's problems, and helped develop the legislative package for railroad deregulation. This legislation, which became the Staggers Rail Act of 1980, significantly improved the financial health of the freight railroads. Oversaw the redirection of the Northeast Corridor Project and arranged for the hiring of a new management team for it to get it back on track following a rocky start. Supervised a staff of 25 and an annual budget of $10 million.

World Bank, Transportation Economist, Railways, Ports, and Pipelines Division for Europe, Mid-East and North Africa 1974-1977
Supervised infrastructure and rolling stock rehabilitation projects on railroads in Turkey, Tunisia, Algeria, Spain, and Portugal and assisted on port projects in Algeria and Tunisia; worked with loan recipients on matters of regulatory change, subsidies, institution building, and training. Supervised loans in the amount of $250 million.

Federal Railroad Administration, Operations Research Analyst, Office of High-Speed Ground Transportation 1968-1974
Managed the preliminary engineering and economic studies for the Northeast Corridor Transportation Project, and participated in the creation of Amtrak and the establishment of the Transportation Technology Center and its Wheel-Rail Dynamics Laboratory.

Military Experience
Commissioned as a 2nd Lieutenant in the Transportation Corps, US Army Reserve in 1963; graduated from the US Army Transportation School at Fort Eustis, Virginia, served on active duty as a 1st Lieutenant and Captain with the Office of the Special Assistant for Strategic Mobility in the Organization of the Joint Chiefs of Staff from 1966 to 1968. In the reserve, served with the 1001st R&D Group, the Military Traffic Management and Terminal Service, and HQ, 3rd Transportation Brigade (Railways), retiring with the rank of Major.

EDUCATION

Bachelor of Science in Industrial Management, MIT, 1963
Master of Arts in Economics and the Certificate in Transportation, Yale University, 1965;
Strathcona Fellow in Transportation

AWARDS AND RECOGNITIONS

Charter member of the US Government's Senior Executive Service, a life member of the American Railway Engineering and Maintenance-of-Way Association, a fellow of the Permanent Way Institution, and a member of Tau Beta Pi engineering honorary society; recipient of the Association of American Railroads' 1992 Outstanding Technological Achievement Award for the natural gas-fueled locomotive project and FRA and DOT awards for leading the Alaska Railroad, overseeing FRA's Y2K activities, and establishing the Nationwide Differential GPS network; and recipient of the Joint Chiefs of Staff Identification Badge, the DOD Joint Service Commendation Medal, the CJCS Joint Meritorious Civilian Service Award, and the FRA Superior Achievement Award.

GUEST LECTURER AT:

American University
Bucknell University
China Academy of Railway Sciences, Beijing
Dartmouth College – Amos Tuck School of Business Administration
University of Denver
EMLYON Business School, Lyon, France
The George Washington University
Harvard Graduate School of Business Administration – Advanced Management Program
HEC School of Management, Paris
Indian Railways Staff College, Vadodara, India
Massachusetts Institute of Technology – Center for Transportation Studies
Merchant Marine Academy
University of Minnesota
Northwestern University – The Transportation Center
University of Pennsylvania – Wharton School of Business Administration
Pennsylvania State University
College of St. Thomas, St. Paul, Minnesota

Texas A&M University
Virginia Polytechnic Institute and State University
University of Washington – Graduate School of Business Administration
Yale University – Kent T. Healy Memorial Lecture

LIST OF PUBLICATIONS

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"Final Report on the Basic National Rail Passenger System". (co-author), Washington, DC: US Department of Transportation, 1971.

"Rail Service in the Northeast and Midwest Region". (co-author), Washington, DC: US Department of Transportation, 1973.

"Improved High Speed Rail for the Northeast Corridor". (co-author), Washington, DC: Federal Railroad Administration, 1973.

Ditmeyer, Steven R. "Regional Transportation Planning: Experience in the Northeast Corridor and Other Corridors." Curso de Ingenieria del Transporte. Madrid: Colegio Oficial de Ingenieros de Caminos, Canales y Puertos, c1974, pp. 631-647.

"Appraisal Report: Port of Jijel, Algeria". (co-author), Washington, DC: World Bank, 1976.

"Appraisal Report: Portugal Highways Project". (co-author), Washington, DC: World Bank, 1977.

"Two-Year Report on the Northeast Corridor". (co-author), Washington, DC: US Department of Transportation, 1978.

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"The Alaska Railroad: Annual Report by the Secretary of Transportation to the President for Transmittal to the Congress." (co-author), Washington, DC: US Department of Transportation, 1980.

"Improving Railroad Technology: A Directory of Research and Development Projects of the Federal Railroad Administration". (co-author), Washington, DC: Federal Railroad Administration, 1980.

"Railroad Freight Traffic Flows 1990". (co-author), Washington, DC: Federal Railroad Administration, 1980.

Ditmeyer, Steven R. "The Contribution of Railroads to Energy Conservation." *Rail International*. 13th year, No. 6, June, 1982, pp. 113-114.

Ditmeyer, Steven R. "Energy Economics: The Railroad Perspective." Proceedings, Railroad Energy Technology: The Alternatives. Memphis, TN, December 1-2, 1982. Washington, DC: Association of American Railroads, 1983, pp. 385-394.

"U. S. Passenger Rail Technologies". (co-author), Washington, DC: US Congress, Office of Technology Assessment, OTA-STI-22, December, 1983.

Ditmeyer, Steven R. "Testimony of the Burlington Northern Railroad to the Senate Subcommittee on Energy and Mineral Resources." Richmond, VA, January 19, 1984.

Ditmeyer, Steven R. et al. "Railway Electrification and Railway Productivity: A Study Report." Railroad Productivity. Transportation Research Record 1029. Washington, DC: Transportation Research Board, 1985, pp. 23-30.

Barton, J.R. et al. "Discolored Wheels: Safe to Reuse?" *Progressive Railroading*, March, 1985, pp. 41043, 46, 48.

Ditmeyer, Steven R. "Railroad Deregulation and New Technological Developments: Are they Related or a Coincidence?" Kent T. Healy Memorial Lecture, Yale University, New Haven, CT, December 2, 1986.

Henderson, D.W. "Research and Development at the Burlington Northern Railroad," (co-author), *Progressive Railroading*, July, 1987.

Ditmeyer, Steven R., "Deregualtion and Technological Progress in Railroading: Some Reflections from the Perspective of a Particular Carrier." *Transportation Journal*. Fall, 1987, pp. 5-9.

Ditmeyer, Steven R. "The Use of GPS Data in an Advanced Railroad Electronics System." Papers and Proceedings of Applied Geography Conferences. Oak Ridge, TN. October 14-17, 1987. Binghamton, NY: SUNY – Binghamton, pp. 119-123.

Ditmeyer, Steven R. "A Railroad Command, Control, and Communications System for the 21st Century." Proceedings, 1989 International Congress on Technology and Technology Exchange. New York, NY, June 29-30, 1989, pp. 141.

Ditmeyer, Steven R. "Comments of the Burlington Northern Railroad Company at the US Department of Transportation's Transportation Policy Open Forum on Innovation and Human Factors." Cambridge, MA, September 11, 1989.

Ditmeyer, Steven R. "The Application of New Technology to Railroad Operations." Proceedings of the Western Coal Transportation Association Fifteenth Annual Meeting and Conference. Denver, CO, September 11-12, 1989, p. 147.

Butt, Edward L. and Steven R. Ditmeyer. "Burlington Northern's Advanced Railroad Electronics System: An Integrated Approach to Railroad Operations." 1989 Committee Reports and Technical Papers of the Communication & Signal Division, Association of American Railroads, October 4, 1989, pp. 596.

Ditmeyer, Steven R. and Edward L. Butt. "Signal and Communications Projects Focus on Service, Safety." *Modern Railroads*, November, 1989, pp. 35-37.

Butt, Edward L. et al. "Sistema de Electronica Ferroviaria de Burlington Northern: Planeamiento Integrado de Operaciones Ferroviarias." XVIII Pan American Railway Congress, Rio de Janiero, Brazil, September 9, 1990.

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Ditmeyer, Steven R. and Randolph R. Resor. "Reliability, Cost, and Performance of Locomotives for Heavy Haul Service." International Heavy Haul Association 1994 Mini-Conference, Omaha, NE, June 7, 1994.

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