# Civil and Environmental Engineering Curriculum Vitae

#### MARK HANSEN

Professor of Civil and Environmental Engineering University of California at Berkeley

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Studies

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#### **EDUCATION**

#### UNIVERSITY OF CALIFORNIA, Berkeley, California

Ph.D. in Transportation Engineering, 1988

Dissertation Title: A Model of Airline Hub Competition

### UNIVERSITY OF CALIFORNIA, Berkeley, California

M.C.P. in City and Regional Planning, 1984

<u>Yale College, New Haven, Connecticut</u> B.A., Physics and Philosophy, 1980

### AWARDS AND HONORS

Honorary Professor, National University of Aeronautics and Astronautics, Nanjing, China, 2017

Blue Sky Chair, Civil Aviation University of China, Tianjin, China, 2016

Best Paper: Weather in ATM Track, Air Traffic Management R&D Seminar, Seattle, WA, 2017

Best Paper: Economics and Politics Track, International Conference on Research in Air Transportation, Philadelphia, PA, 2016

Blue Sky Scholar, Civil Aviation University of China, Tianjin China, 2017

Francis X. McKelvey Award for Demonstrated Commitment to the Betterment of the Aviation Industry, Transportation Research Board, 2015

Best Paper: Environment and Energy Efficiency Track, Air Traffic Management R&D Seminar, Chicago, IL. 2013

Best Paper: Finance and Policy Track, Air Traffic Management R&D Seminar, Chicago, IL, 2013

Best Paper: Socio-Economic-Institutional Challenges and Socio-Technical Complexity in Air Transport

Track, International Conference on Research in Air Transportation, Berkeley, CA, 2012

Best Paper: Environment and Weather Track, International Conference on Research in Air Transportation, Berkeley, CA, 2012

Best Paper: Weather in ATM, Air Traffic Management R&D Seminar, Berlin, Germany, 2011 Best Paper: Environmental and Weather Track, International Conference on Research in Air

Transportation, Budapest, Hungary, 2010

Best Paper: Prospective Studies and Economics Track, International Conference on Research in Air Transportation, Budapest, Hungary, 2010

Best Paper: Finance and Policy, Air Traffic Management R&D Seminar, Napa, CA, 2009

Best Paper: Active ATM Performance Management, Barcelona, Spain, 2007

Best Paper: Human Factor Track, Air Traffic Management R&D Seminar, Baltimore, MD, 2005

#### ACADEMIC EXPERIENCE

HONORARY PROFESSOR, National University of Aeronautics and Astronautics, Nanjing, China, (May 2017 – Present)

BLUE SKY CHAIR, Civil Aviation University of China, Tianjin, China (April 2016 – Present)

PROFESSOR, University of California, Berkeley, CA (JUL 2006 - Present)

ASSOCIATE PROFESSOR, University of California, Berkeley, CA (JUL 1996 - JUN 2006)

ASSISTANT PROFESSOR, University of California, Berkeley, CA (JUL 1988 - JUN 1996)

ASSISTANT RESEARCH ENGINEER, University of California, Berkeley, CA (MAY 1988 – AUG 1988): Institute of Transportation Studies

<u>LECTURER</u>, <u>University of California</u>, <u>Berkeley</u>, <u>CA (MAY 1988 – MAY 1988)</u>: Department of Civil Engineering

GRADUATE STUDENT INSTRUCTOR, University of California, Berkeley, CA (JAN 1988 – MAY 1988): Department of Civil Engineering

RESEARCH ASSISTANT, University of California, Berkeley, CA (JAN 1985 – MAY 1985): Institute of Transportation Studies

TEACHING ASSISTANT, University of California, Berkeley, CA (JAN 1984 – MAY 1984): Department of City and Regional Planning

RESEARCH ASSISTANT, University of California, Berkeley, CA (JAN 1983 – DEC 1984): Institute for Urban and Regional Development

#### COURSES TAUGHT (selected)

- CE 301 "Workshop Civil Engineering Teacher" (Varied semester units)
- CE 299 "Individual Research" (Varied semester units)
- CE 298 "Group Studies" (Varied semester units)
- CE 290Z "Selected Topics in Air Transportation" (2 semester units)
- CE 262 "Analysis of Transportation Data" (3 semester units)
- CE 260 "Air Transportation" (3 semester units)
- CE 254 "Transportation Economics" (3 semester units)
- CE 253—"Design of Transportation Systems" (3 semester units)
- CE 252 "Systems Analysis in Transportation" (3 semester units)
- CE C250N/ CY PLAN C217 "Transportation Policy and Planning" (3 semester units)
- CE 199 "Supervised Independent Study" (Varied semester units)
- CE 198 "Directed Group Study" (2 semester units)
- CE H194 "Honors Undergraduate Research" (4 semester units)
- CE 151 "Transportation Planning and Implementation" (3 semester units)
- CE 99 "Supervised Independent Study" (2 semester units)
- CE 93 "Engineering Data Analysis" (3 semester units)

#### **EXTENSION TEACHING**

- "Airport Systems Planning and Design," ITS Tech Transfer, Faculty Member in Charge, 2007-present
- "Diploma in Airport Engineering," ITS—UC Berkeley and Singapore Aviation Academy, Faculty Member in Charge, 2011-present
- "Airport System and Planning," ITS—UC Berkeley and Singapore Aviation Academy, Instructor, 2011-present

#### RESEARCH SUPERVISION

#### M.S. (\* indicates chair of thesis committee)

- "How Do Airlines Pick Their Scheduled Block Times?" Masters of Science Research Topic of Maxime Pierre Bernard Crepin, 2013.\*
- "Double-Parked Commercial Vehicles and Bus Speeds in the Mission District of San Francisco," Master of City Planning Research Topic of Kristen Elizabeth Carnarius, 2012.
- "Impacts of Mixed Media Air Traffic Control Communication Environment on Aviation Efficiency," Master of Science Research Topic of Sarah K. Yenson, 2008.\*
- "Annualization Methodologies for the Simulation of Future Concepts in the National Airspace System," Doctoral Research Topic of Lyle Paladin-Tripp, 2006.\*
- "Data and Discretion: Evaluating the Effectiveness of the FAA Safety Oversight System," Master of City Planning Research Topic of Carolyn Ann McAndrews, 2006.
- "Analysis of Voting Outcomes of Local Transportation Sales Tax in Measures in Sonoma County," Master of City Planning Research Topic of Robert Lewis Hannay, 2005.
- "How the Events of September 11, 2001, Have Impacted California: A Study of Corporate Aviation Trends," Master of Science Research Topic of Erik Tomas Wilkins, 2002.\*
- "Demand Responsive Transit for the General Public: An Assessment of Flexible Routing's Current State and Possible Future in Suburbia," Master of City Planning Research Topic of John David Beutler, 1999.
- "Incorporating Telecommuting into an Urban Travel Demand Model," Master of Science Research Topic of Shirley Chan, 1998.
- "Comparing Centralized and Decentralized Vehicle Inspection and Maintenance Programs: Case Study of California and Arizona," Master of City Planning Research Topic of Christopher Dale Porter, 1995.
- "Travel Patterns Within Transit and Pedestrian Oriented Neighborhoods," Master of City Planning Research Topic of Carolyn Amalie Radisch, 1995.
- "Public Investment in the Highway System: The Impact on Economic Growth and Productivity 1969-1987," Master of Science Research Topic of Ann Rebecca Fine, 1992.\*

#### Ph.D. (\* indicates chair of thesis committee)

- "Modeling and Forecasting the Impact of Major Technological and Infrastructural Changes on Travel Demand," Doctoral Research Topic of Feras El Zarwi, 2017.
- "Changing Fuel Loading Behavior to Improve Airline Fuel Efficiency," Doctoral Research Topic of Lei Kang, 2017.\*
- "Finding Similar Days in Air Traffic Management," Doctoral Research Topic of Sreeta Gorripaty, 2017.\*
- "Quantifying the Impact of Flight Predictability on Strategic and Operational Airline Decisions," Doctoral Research Topic of Lu Hao, 2015.\*
- "Predictability in Air Traffic Flow Management," Doctoral Research Topic of Yi Liu, 2015.\*
- "Flight Cancellation Behavior and Aviation System Performance," Doctoral Research Topic of Michael Thomas Seelhorst, 2014.\*
- "Generating day-of-operation probabilistic capacity scenarios from weather forecasts," Doctoral Research Topic of Gurkaran Singh Buxi, 2012.\*
- "Analyzing the Structure of informal Transport: The Evening Commute Problem in Nairobi, Kenya," Doctoral Research Topic of Celeste Chavis, 2012.
- "Flight Delays, Capacity, Investment and Welfare under Air Transport System Equilibrium," Doctoral Research Topic of Bo Zou, 2012.\*
- "The Capitalization Effects of Work and Nonwork Accessibilities in Southeast Michigan," Doctoral Research Topic of Guangyu Li, 2012.
- "Stochastic Queuing Models for Air Transportation Systems with Scheduled Arrivals," Doctoral Research Topic of Anastasios Nikolaos Nikoleris, 2011.\*
- "Collaborative Resource Allocation Strategies for Air Traffic Flow Management," Doctoral Research Topic of Amy Miyoung Kim, 2011.\*
- "Choosing Transit: The Influence of Past Travel Behavior," Doctoral Research Topic of James Rubin, 2011.
- "Optimal Intercity Transportation Services with Heterogeneous Demand and Variable Fuel Price," Doctoral Research Topic of Megan Smirti Ryerson, 2010.\*

- "Road Safety in the Context of Urban Development in Sweden and California," Doctoral Research Topic of Carolyn Ann McAndrews, 2010.
- "A Probabilistic Approach to the Air Traffic Management in the Next Generation Air Transportation System: Optimal Routing Decision with Geometric Recourse," Doctoral Research Topic of Yoonjin Yoon, 2010.\*
- "Revealed Preference of Airlines' Behavior under Air Traffic Management Initiatives," Doctoral Research Topic of Jing Xiong, 2010.\*
- "Taking for Takeoff: Incidence of Airport Taxes," Doctoral Research Topic of Chengchou Edward Huang, 2009.
- "Evaluating the System Impact of En Route Delay," Doctoral Research Topic of Huifang Yin, 2009.\*
- "Large Scale Modeling and Optimization of En Route Traffic Air Traffic Flow," Doctoral Research Topic of Dengfeng Sun, 2008.
- "Charter vs Scheduled Airlines," Doctoral Research Topic of Gautam Gupta, 2008.\*
- "Managing Uncertainty in the Single Airport Ground Holding Problem using Scenario-based and Scenario-free Approaches," Doctoral Research Topic of Pei-Chen Liu, 2007.\*
- "Real-Time Intermodal Strategies for Airline Schedule Perturbation Recovery and Airport Congestion Mitigation under Collaborative Decision Making (CDM)," Doctoral Research Topic of Yu Zhang, 2006.\* "Passenger Demand for Air Transportation in a Hub-and-Spoke Network," Doctoral Research Topic of Chieh-Yu Hsiao, 2008.\*
- "Automation Adoption and Adaptation in Air Traffic Control," Doctoral Research Topic of Tatjana Srdija Bolic, 2006.\*
- "Airport and Station Accessibility as A Determinant of Mode Choice," Doctoral Research Topic of Reinhard Clever, 2006.\*
- "The Effects of Fixed-Route Transit Service Contracting on Labor," Doctoral Research Topic of Songju Kim, 2005.
- "Airline Schedule Recovery Following Disturbances: An Organizationally-Oriented Decision-Making Approach," Doctoral Research Topic of Sheng-Chen Huang, 2005.
- "Robust Markov Decision processes with Uncertain Transition Matrices," Doctoral Research Topic of Arnab Nilim, 2004.
- "Dynamic Stochastic Optimization Models for Air Traffic Flow Management," Doctoral Research Topic of Avijit Mukherjee, 2004.\*
- "Airlines' Choice of Aircraft Size in a Competitive Environment," Doctoral Research Topic of Wenbin Wei, 2000.\*
- "Firm Inventory Behavior and the Returns from infrastructure investment," Doctoral Research Topic of Robert Lindsey Bristol, 2000.
- "Increasing Airline Operational Control in a Constrained Air Traffic System," Doctoral Research Topic of Jennifer Rausch Goodhart, 2000.
- "Commercial Vehicle Value of Time and perceived Benefit of Congestion Pricing," Doctoral Research Topic of Kazuya Kawamura, 1999.
- "Non-Work Activity Scheduling Effects in the Timing of Work Trips," Doctoral Research Topic of Rosella Picado, 1999.\*
- "A Utility-Theory Consistent System-of-Demand-Equations Approach to Household Choice Travel," Doctoral Research Topic of Kara Maria Kockelman, 1998.\*
- "Assessing the Benefits of Automated Pedestrian Movement Systems in Airport Terminals," Doctoral Research Topic of Seth Bennett Young, 1998.\*
- "The Timing of Activity and Travel Planning Decisions," Doctoral Research Topic of Christoffel Jacobus Venter, 1998.\*
- "On Whom the Toll Falls: A Model of Network Financing" Doctoral Research Topic of David Matthew Levinson, 1998.\*
- "Time-of-Day Effects in Inter-City Business Travel," Doctoral Research Topic of Shomik Raj Mehnidratta, 1996.\*
- "Transportation and The Location of Interactive Activities," Doctoral Research Topic of Yuanlin Huang, 1996.\*
- "A Comparison of Freight Distribution Costs for Combination and Dedicated Carriers in the Air Express Industry," Doctoral Research Topic of Max Karl Kiesling, 1995.\*

"The Impact of International Aviation Liberalization: the North Atlantic Routes as a Case Study," Doctoral Research Topic of Eric Georges Maillebiau, 1994.\*

"Causes, Motivations and Supply-Side Implications of International Airline Equity Alliances," Doctoral Research Topic of Waleed Ahmed Hafez Youssef, 1994.\*

"Interaction Between Congestion Pricing and Advanced Traveler Information Systems," Doctoral Research Topic of Jae Choon Lee, 1991.

"Traffic Flow Characteristics of Signalized Arterials under Disturbance Situations," Doctoral Research Topic of Lee David Han, 1991.

"Technical Choices and Economic Trade-Offs in Highway Design, Construction and Maintenance," Doctoral Research Topic of Jianfei Zhang, 1991.

"Near Midair Collisions as an Indicator of General Aviation Collision Risk," Doctoral Research Topic of H Paul Shuch, 1990.

"Scared Precedence Activity Network (Span) Approach to Design of Transportation Systems: A Methodology Developed to Introduce Road Facilities," Doctoral Research Topic of Mark Evan Pitstick, 1991.

"Hub Dominance and Pricing in the Airline Industry," Doctoral Research Topic of Melanie G Mauldin, 1990.

"The Relationship between Transportation Services and Urban Activities: The Food Retail Distribution Case," Doctoral Research Topic of Young Bin Yim, 1990.

#### UNIVERSITY SERVICE

Chair, CEE Strategic Planning Committee, 2016-present.

Chair, TE Admissions Committee, 2017-present.

Member, Women's Faculty Club Board, 2014-present.

Member, TE Admissions Committee, 2016-2017.

Member, Committee on Educational Policy, University of California, Berkeley, 2013-2015.

Co-Director, National Center of Excellence for Aviation Operations Research, 2002-present.

Member, Ad hoc committee, Mid-career Review, 2014

Member, CEE Executive Committee, 2007-2008, 2010-2015.

Member, Cal Answers Advisory Committee, University of California, Berkeley, 2013-2015

Member, Student Relations Committee, University of California, Berkeley, 2013-2014.

Chair, Ad hoc committee, Promotion to Professor, 2013-14.

Member, Ad hoc committee, Promotion to Professor, 2012-13.

Member, Ad hoc committee, Promotion to Adjunct Associate Professor, 2012-13.

Member, Ad hoc committee, Promotion to Associate Professor, 2011-12.

Member, CEE Strategic Planning Committee, 2013.

Member, CEE Faculty Search Committee, 2011-12.

Member, CEE Outreach and Enrollment Committee, 2007-2008, 2009-2011.

Group Leader, Transportation Engineering (TE), 2010-2015.

Graduate Student Advisor, Transportation Engineering Group. 2008-present.

Member, ITS Executive Committee. 1996-present.

### PROFESSIONAL ACTIVITIES

Member, Singapore Aviation Academy Advisory Board 2015-present

Member, Scientific Advisory Panel, Air Traffic Management Research Institute, National Technical University of Singapore, 2017-present

Conference Chair, Global Workshop on Airspace Systems Performance, Tianjin China, July 2016, 2015-2016

Topic Area Manager, Topic Area A, World Conference on Transportation Research Society, June 2014 – present.

Member, Transportation Research Board Committee on Short-haul Intercity Passenger Travel, 2012-2015 Chair, Transportation Research Board, Committee AV060, Airport and Airspace Capacity Delay, 2005-2011.

Co-Chair, NAS Performance Workshop, March 2015, Pacific Grove, CA, 2014-2015

Co-Organizer and Program Committee Member, FAA- Eurocontrol ATM R&D Conference

- June 2017, Seattle, WA, 2016-2017
- June 2015, Lisbon, Portugal, 2014-2015
- June 2013, Chicago, IL, 2012-2013
- June 2011, Berlin, Germany, 2010-2011
- July 2009, Napa, CA 2008-2009
- July 2007, Barcelona, Spain 2006-2007
- June 2005, Baltimore, MD 2004-2005

Editorial Advisory Board, Transportation Research E., 1/2014 – present.

Editorial Board, Associate Editor, Operations Research, 2007 – 2013.

Co-Organizer and Program Committee Member, International Conference for Research in Air Transportation

- June 2016, Philadelphia PA, 2015-2016
- May 2014, Istanbul, Turkey, 2013-2014
- May 2012, Berkeley, CA, 2011-2012 (Local Organizer)
- May 2010, Budapest, Hungary, 2009-2010

Member, Air Transportation Research Society Networking Committee, 1995-present.

Member, National Academy of Sciences Study Committee. Committee on Intercity Passenger Travel:

Opportunities and Issues in Short-haul Markets, 2011-present

Reviewer Activities, Archival Journals

- Transportation Research A
- Transportation Research B
- Transportation Research C
- Transportation Research E
- Air Traffic Control Quarterly
- Journal of Air Transport Management
- Management Science
- Journal of Aerospace Information Systems
- Transportation Research Record
- Journal of Transportation Economics and Policy
- Journal of the American Planning Association
- Euro Journal of Transportation and Logistics
- Journal of Transportation Policy

#### Reviewer Activities, Other

- "BSc(Hons) in Aviation Operations and Systems," Program Validation Board, The Hong Kong Polytechnic University, 2016
- "FAA Planning and Implementation of NEXTGEN," General Accountability Office, Subject Matter Expert, 2016

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- "Approach for Determining Future Air Traffic Controller Staffing Needs," National Academy of Sciences," 2014
- "Advancing Aeronautics: A Decision Framework for Selecting Research Agendas Rand Corporation," 2010

#### **TESTIMONY**

United States Senate Finance Committee, Airport and Airway Trust Fund: Future of Aviation Financing, 2007

California Assembly Committee on Transportation. Testified on need for improved demand forecasts for California High Speed Rail, 2012

### CONSULTING EXPERIENCE

Airport Cooperative Research Program: Member of project team for ACRP Project 3-40: Air Demand in a Dynamic Competitive Context with the Automobile, 2016-present

Airport Cooperative Research Program: Member of project team for ACRP Project 3-23: Integrating Aviation and Passenger Rail Planning, 2010-2014.

Airport Cooperative Research Program: Member of project team for ACRP Project 3-17: Evaluating Airfield Capacity, 2009-2012.

Airport Cooperative Research Program: Member of project team for ACRP Project 3-10: Innovative Approaches to Addressing Aviation Capacity Issues in Coastal Mega-regions, 2008-2009.

Airport Cooperative Research Program: Member of project team for ACRP Project 3-10: Innovative Approaches to Addressing Aviation Capacity Issues in Coastal Mega-regions, 2008-2009.

Los Angeles World Airports: Served on Academic Panel that assessed safety and capacity benefits from alternatives for re-configuring the North Airfield at LAX, 2008-2010.

Airport Cooperative Research Program, Member of project team for ACRP project 3-17: Evaluating Airfield Capacity, 2009-2012.

Airport Cooperative Research Program, Member of project team for ACRP project 2-23: Integrating Aviation and Passenger Rail Planning, 2011-present.

United States Congress General Accountability Office: Provided technical advice on modeling the impact of the Department of Transportation Tarmac Delay Rule on flight cancellations, 2011.

#### RESEARCH GRANTS

"Rail and the California Economy," California Department of Transportation, 3/2015 – 4/2017, \$434,156 "Evaluation of En Route Performance Measures," University of Maryland (College Park), 10/2015 – 9/2017, \$227,215

"Optimization and Prediction for a Collaborative Trajectory Options Program Decision-Support Capability, Metron Aviation, 9/2016 – 9/2019, \$343,689

"Big Data Analytics for Aeronautics," ATAC Corporation, 10/2016 – 5/2017, \$95,657

"Airport Weather Profiles: Long-Term Airport Planning Tool," National Academy of Sciences, 9/2015-9/2016, \$10,000

"Similar Days in the NAS," NASA, 8/2014 – 7/2017, \$1,200,000

"Evaluation of Predictability as a Performance Measure," University of Maryland (College Park), 8/2014 - 5/2016, \$125,000

"Using Tactical Air Traffic Management to Improve Schedule Reliability," NASA Ames University Affiliated Research Center, UC Santa Cruz, 10/2014 – 5/2016, \$113,206

"Tactical Rerouting: A Data Mining Study," NASA Ames University Affiliated Research Center, UC Santa Cruz, 10/2014 - 6/2016, \$220,126

"Data Warehouse in a Laptop (DWiL)," NASA Ames University Affiliated Research Center, UC Santa Cruz, 12/2013 - 09/2014, \$27,000

"Behavioral Analysis of Flight Rerouting," NASA Ames University Affiliated Research Center, UC Santa Cruz, 12/2013 - 09/2014, \$69,000

"Predictability Measurement and Valuation in Air Traffic Management," NASA Ames University Affiliated Research Center, UC Santa Cruz, ARP 2013, 01/2013 - 06/2014, \$40,000

"Cost of Delay to Cargo and Overnight Package Delivery Firms," University of Maryland (College Park), NEXTOR II: DO  $20,\,09/2012$  -  $08/2014,\,104,028$ 

"Distributed Mechanisms for Determining NAS-Wide Service Level Expectations," University of Maryland (College Park), 09/2011 - 09/2014, \$287,980

"Airline Operation Efficiency, CO2, Emissions, and Comparative Airline Ranking," International Council on Clean Transportation (ICCT), 07/2011 - 05/2012, \$139,704

"Aviation and the Environment: Models of a Pollutant-Constrained Aviation System," UC Santa Cruz, 01/2011 - 12/2011, \$100,000

"Fuel Consumption Data for Specific Flights Material Transfer Agreement," Delta Airlines, Inc., 08/2010 - 08/2012

"Impact of the Loss System Index on NAS Risk Factors," DOT FAA Federal Aviation Administration, 03/2010 - 12/2011, \$75,000

"Performance Based Ground Delay Program Decision Making Using Multiple Criteria," National Academy of Sciences, 05/2013 - 09/2013, \$10,000

"Predictability Measurement and Valuation in Air Traffic Management," UC Santa Cruz, 01/2012 - 05/2013, \$40,000

- "The Impact of Oil Prices on the Air Transportation Industry," University of Maryland (College Park), 09/2011 06/2013, \$121,893
- "New Concepts and Metrics for Flight Predictability," University of Maryland (College Park), 09/2011 09/2013, \$126,550
- "Analytical Support to the FAA Office of Performance Analysis and Strategy," University of Maryland (College Park), 09/2011 12/2013, \$96,399
- "Airline Operation Efficiency, CO2, Emissions, and Comparative Airline Ranking," International Council on Clean Transportation (ICCT), 07/2011 07/2012, \$139,704
- "Aviation and the Environment: Models of a Pollutant-Constrained Aviation System," UC Santa Cruz, 01/2011 04/2012, \$100,000
- "Flight Performance Model Development and Validation," DOT FAA Federal Aviation Administration, 11/2010 08/2011, \$99,944
- "New Resource Allocation mechanisms for AFP Planning," DOT FAA Federal Aviation Administration, 09/2010 08/2011, \$140,000
- "New Resource Allocation Mechanisms for AFP Planning," DOT FAA Federal Aviation Administration, 09/2010 05/2012, \$140,000
- "Efficient Descent Advisor for 3D-ah Arrival management (3D-PAM)," UC Santa Cruz, 05/2010 03/2011, \$42,013
- "California High Speed Rail Ridership Forecasting Study," California High-Speed Rail Authority, 04/2010 07/2010, \$35,970.
- "Distributed Mechanisms for Determining NAS-Wide Service Level Expectations," DOT FAA Federal Aviation Administration, 04/2010 05/2011, \$100,000
- "Impact of the Loss System Index on NAS Risk Factors," DOT FAA Federal Aviation Administration, 03/2010 12/2011, \$75,000
- "Dwight David Eisenhower Transportation Fellowship Program for Anastasios Nikoleris," DOT Federal Highway Administration, 09/2009 09/2010, \$1,500
- "Air Transport Supply-Demand Equilibrium Models," DOT FAA Federal Aviation Administration, 08/2009 06/2011, \$75,000
- "TFM Strategic Flow Management Research Whitepaper Development," DOT FAA Federal Aviation Administration, 07/2009 06/2010, \$50,000.
- "Dwight David Eisenhower Transportation Fellowship Program 2008 Eisenhower Graduate Fellowships," DOT Federal Highway Administration, 09/2008 09/2009, \$11,500
- "Air Transportation: Total Cost of Delay and Its Impact on the US Economy and Productivity," DOT FAA Federal Aviation Administration, 09/2008 08/2010, \$362,500
- "The Dwight David Eisenhower Transportation Fellowship Program 2008 Eisenhower Graduate Fellowships," DOT Federal Highway Administration, 09/2008 09/2009, \$1,500
- "NASA NextGen Advanced Projects and Vehicles," Raytheon, 08/2008 12/2009, \$129,109
- "Performance Metrics and Measurement Conference, Asilomar, CA," DOT FAA Federal Aviation Administration, 06/2008 05/2009, \$60,000
- "Air Traffic Management Fundamental Research," UC Santa Cruz, University Affiliated Research Center, 03/2008 09/2008, \$35,000.
- "Models and Analysis to Support Airport Congestion Management," DOT FAA Federal Aviation Administration, 01/2008 03/2010, \$89,996
- "Dwight David Eisenhower Transportation Fellowship Program for Amy Kim," DOT Federal Highway Administration, \$61,500.
- "Dwight David Eisenhower Transportation Fellowship Program for Brittany Montgomery," DOT Federal Highway Administration, 09/2007 09/2008, \$1,500
- "Methodology for Infrastructure and Life Cycle Costs for General National Airspace System (GNAS) Facilities," DOT FAA Federal Aviation Administration, 08/2007 09/2008, \$120,000
- "Valuation of Schedule Changes in Response to Air Traffic System Constraints," DOT FAA Federal Aviation Administration, 08/2007 07/2008, \$100,000
- "Queuing Models of the Impact of 4D Trajectory Precision on Aviation System Performance," Advanced Stochastic Network, 08/2007 03/2011, \$966,966
- "Performance Metrics and Measurement Conference, Asilomar, CA," DOT FAA Federal Aviation Administration, 08/2007 09/2007, \$56,000

- "Benefits Analysis for Data Communications," DOT FAA Federal Aviation Administration, 04/2007 01/2008, \$100,000
- "The Automated Dependent Surveillance-Broadcast (ADS-B)," Raytheon, 03/2007 02/2008, \$25,006 "Validation of Airport Capacity Models," DOT FAA Federal Aviation Administration, 02/2007 08/2007, \$32,500.
- "Capacity Scenarios for Dynamic, Stochastic Models for Managing Air Traffic Flows," University of Maryland (College Park), 10/2006 09/2010, \$373,842
- "A Unified Approach to Strategic Models and Performance Evaluation for Traffic Flow Management," National Aeronautics and Space Administration, 10/2006 09/2010, \$992,262
- "Alternative Demand Scenarios," DOT FAA Federal Aviation Administration, 09/2006 06/2007, \$35,000.
- "Methodology for Condition Assessment of Unstaffed Facilities for the National Airspace System Infrastructure," DOT FAA Federal Aviation Administration, 09/2006 12/2007, \$50,000.
- "Assessment of En Route Sector Performance and Operational Concept Evaluation Using Fast-time Computational Model of Humans Performance," DOT FAA Federal Aviation Administration, 07/2006 06/2008, \$541,464.
- "Collaborative Decision Making (CMD) and Air Traffic Flow Management," DOT FAA Federal Aviation Administration, 06/2006 08/2007, \$75,000
- "UC Berkeley Strategy Simulator 2006," DOT FAA Federal Aviation Administration, 03/2006 06/2008, \$120.000
- "Analysis of Benefits Provided by Traffic Management Advisor," DOT FAA Federal Aviation Administration, 11/2005 06/2008, \$300,000.
- "Using ACES for Near-Term Decision Making," DOT FAA Federal Aviation Administration, 09/2005 08/2006, \$144,000.
- "Methodology for Estimating Airport Capacity and Throughput Performance Using PDAR," DOT FAA Federal Aviation Administration, 09/2005 08/2006, \$149,997
- "Methodology for Condition of Unstaff Facilities for the National Airspace System Infrastructure Assets," DOT FAA Federal Aviation Administration, 05/2005 05/2006, \$186,062
- "Demand Management Seminars for the Aviation Community," DOT FAA Federal Aviation Administration, 09/2004 06/2007, \$50,000
- "Handling Uncertainty in Air Traffic Management System via Robust Optimization Methods," NASA Ames University Affiliated Research Center, UC Santa Cruz, 09/2004 06/2007, \$105,110
- "VAMS Chief Blending Architect (CBA) Expertise," UC Santa Cruz, 09/2004 09/2006, \$375,527
- "Graduate Student Research (GSR) Support for VAMS," UC Santa Cruz, 09/2004 06/2007, \$264,800
- "Development of a National Database of Air Passenger Survey Data," DOT FAA Federal Aviation Administration, 09/2004 04/2006, \$92,000
- "Slot Auctions at US Airports," DOT FAA Federal Aviation Administration, 09/2004 01/2006, \$250,226 "Methodology for En Route Sector Performance Assessments," DOT FAA Federal Aviation Administration, 09/2004 04/2006, \$182,500.
- "Collaborative Decision Making, Calendar Year 2004," DOT FAA Federal Aviation Administration, 08/2004 04/2006, \$78.344
- "National Airspace System Strategic Decision Support Model: Phase 3," DOT FAA Federal Aviation Administration, 07/2004 01/2006, \$160,000
- "Analytical Support for the Free Flight Program Office," DOT FAA Federal Aviation Administration, 11/2003 02/2005, \$309,000
- "Analytical Support for the Global Aviation Information Network Phase 5," DOT FAA Federal Aviation Administration, 10/2003 12/2004, \$209,864
- "NEXTOR Program Support," DOT FAA Federal Aviation Administration, 10/2003 09/2004, \$15,136 "Air Traffic Management Optimization Under Uncertainty," NASA Ames University Affiliated Research Center, UC Santa Cruz, 09/2003 12/2004, \$100,000
- "National Center of Excellence in Aviation Operations Research," DOT FAA Federal Aviation Administration, 08/2003 08/2004, \$134,364
- "Oversight Evaluation Tool Project," DOT FAA Federal Aviation Administration, 08/2003 01/2006, \$602,415
- "University of California/NEXTOR FAA Short Course on Performance Measurement in Aviation Operations," DOT FAA Federal Aviation Administration, 08/2003 12/2004, \$55,000

- "National Center of Excellence in Aviation Operations Research," DOT FAA Federal Aviation Administration, 08/2003 05/2004, \$50,000
- "Nextor Program Management," DOT FAA Federal Aviation Administration, 03/2003 04/2007, \$965,525.
- "Comprehensive Evaluation of Investments in the FAA Terminal Business Services (ATB) Environment," DOT FAA Federal Aviation Administration, 11/2002 07/2004, \$210,000.
- "NAS Equipment Maintenance and Air Traffic Data to Support Air Traffic Services Model Enhancements," Gelman Research Associates, Analysis of Weather, 10/2002 12/2003, \$58,000
- "Analysis of Controller-Pilot Voice Communication to Support Data Link Investment Analysis," DOT FAA Federal Aviation Administration, 09/2002 09/2003, \$150,000.
- "NEXTOR FAA Executive Workshop," DOT FAA Federal Aviation Administration, 09/2002 03/2004, \$79,000
- "Eisenhower Fellowship for Natasha Goguts," DOT Federal Highway Administration, 08/2002 08/2005, \$62,300
- "Infrastructure Performance and Investment Analysis," DOT FAA Federal Aviation Administration, 08/2002 08/2003, \$60,000
- "Module Development of the Strategic Simulator," DOT FAA Federal Aviation Administration, 07/2002 12/2003, \$230,000
- "Analytical Support for Free Flight Phase I-Year 3," DOT FAA Federal Aviation Administration, 03/2002 06/2004, \$670,000.
- "Analytical Support for the Global Aviation Information Network Phase 4," DOT FAA Federal Aviation Administration, 03/2002 09/2003, \$200,000
- "Analysis of Avoidable En Route Delta Associated with CIWS," MIT Massachusetts Institute of Technology, 07/2001 04/2003, \$62,076
- "Airports and Air Quality: Emissions, Conformity, and Mitigation," Los Angeles Department of Airports, 09/2000 04/2002, \$40,000
- "Development of a Scope of Work for Airport Land Use Planning in Los Angeles County," California Department of Transportation, 02/2000 10/2000, \$19,900
- "Induced Demand: A Regional Perspective on the Travel Demand Impacts of Road Improvements," EPA Environmental Protection Agency, 07/1999 06/2001, \$125,000
- "Influence of Capacity Constraints on Airline Fleet Mix (UCB-ITS-4183)," Los Angeles Department of Airports, 05/1999 05/2001, \$95,000.
- "Development of Fast-Time Simulation Techniques to Model Safety Issues in the National Airspace System," ATAC Analytic Technologies Application Corp, 04/1999 01/2002, \$96,250
- "Center Sector Tools Descent Advisor Research (Delivery Order 002 Under DTFA03-97-D-00004)," DOT FAA Federal Aviation Administration, 05/1997 09/1998, \$100,000
- "ATM Concept Baseline Definition (Delivery Order 001 Under DTFA03-97-D-00004)," DOT FAA Federal Aviation Administration, 04/1997 09/1999, \$913,000
- "Rural And Small Urban Transit Guide For Planning, Coordinating And Marketing Intercity Bus Transportation Services," California Department of Transportation, 06/1995 09/1996, \$75,000
- "Light Rail System Safety Improvements Using Ivhs Technologies A Case Study," California Department of Transportation, 02/1994 07/1995, \$164,790
- "Development Of An Integrated Model For The Evaluation Of Commercial Air Service In A Multi-Airport Region," California Department of Transportation, 02/1994 06/1995, \$132,500
- "Evaluation Of The I-110 Corridor Smart Card Demonstration Project," California Department of Transportation, California Department of Transportation, 02/1994 06/1995, \$102,469
- "Eisenhower Graduate Transportation Fellowship," DOT Federal Highway Administration, 09/1993 08/1996, \$58,209.
- "Evaluation Methodology For Deploying Electric Buses In Transit And Paratransit Services," California Department of Transportation, 08/1993 12/1994, \$75,841
- "Path Mou 79 Development Of An Integrated Model For The Evaluation Of Commercial Air Service In A Multi-Airport Region," California Department of Transportation, 07/1992 08/1993, \$50,000.
- "Evaluating the Impacts of U.S. Airline Mergers on Small-and-Medium-Hub Airports," Transportation Research Board, \$10,000 Pending
- "Evaluating the Compounding Effect of Flight Delay on Ground Transport," Transportation Research Board, \$10,000, Pending

"Demonstration Scenarios of Recent FAA Modernization Efforts," Jerry Thompson and Associates, Inc., \$361,531 - Pending

#### **PUBLICATIONS**

Please refer to the attached list that was produced from our department's publications database and includes publications which were listed on your previously submitted Annual Supplements to the Bio-Bibliography forms

Please update the list with any new or missing publications for inclusion with your CV

#### INVITED PRESENTATIONS (in addition to papers presented at conferences)

- "The Route Not Traveled: An Econometric Model of En Route Flight Inefficiency in the US,"
- Transportation Science and Logistics First Triennial Conference, Chicago, II, 7/2017
- "Big Data Analytics in Civil Aviation," Civil Aviation University of China, Tianjin, China, 6/2017
- "The Economics of Flight Delay and Unpredictability," Civil Aviation University of China, Tianjin, China, 6/2017
- "Big Data Analytics in Civil Aviation," National University of Aeronautics and Astronautics, Nanjing, China, 6/2017
- "The Economics of Flight Delay and Unpredictability," National University of Aeronautics and Astronautics, Nanjing, China, 5/2017
- "Total Delay Impact Study," NEXTOR 20th Anniversary Symposium, College Park, MD, 9/2016
- "Measuring and Modeling En Route Flight Efficiency: the US Experience," GWASP Conference, Tianjin, China, 7/2016
- "A Multi-modal Perspective on Interregional Passenger Travel," Aviation Insight Series," Singapore Aviation Academy, Singapore, 6/2016
- "A Multi-modal Perspective on Interregional Passenger Travel," Symposium on Complexity Science in Air Transportation," Beihang University, Beijing, China, 4/2016
- "Research Overview," Civil Aviation University of China, Tianjin, China, 4/2016
- "Similar Historical Days and Air Traffic Flow Management Response Strategies," Civil Aviation University of China, Tianjin, China, 4/2016
- "Similar Historical Days and Air Traffic Flow Management Response Strategies," Air Traffic Flow Management Workshop, Nanjing, China, 4/2016
- "Airline Competition and Market Frequency: A Comparison of the S-curve and Schedule Delay Models," COTA International Conference for Transportation Professionals, Beijing China, 7/2015
- "Role of Aviation in a Multi-modal Transportation System," Keynote Address, COTA International Conference for Transportation Professionals, Beijing China, 7/2015
- "Predictability in Air Traffic Management, NEXTOR Symposium, Washington, DC, 5/2015
- "Predictability in Air Traffic Management," University of Pennsylvania, 3/2015
- "Predictability in Air Traffic Management," Georgia Tech University, 3/2015
- "Evaluation of Predictability as a Performance Measure," Global Challenges Workshops, Asilomar CA, 2/2015
- "Implications of MH370 for ATC and ATM," Transportation Research Board Annual Meetings, Washington, DC, 1/2015
- "Multimodal Impact Analysis of an Airside Catastrophic Event," INFORMS 2014, San Francisco CA, 11/2014
- "NEXTOR-Berkeley Research Overview," National Technical University, Singapore, 8/2014
- "NEXTOR Introduction," Civil Aviation University of China, Tianjin, China, 6/2014
- "TE at UC Berkeley," Tsinghua University, Beijing, China, 6/2014
- "TE at UC Berkeley," Southeast University, Nanjing, China, 6/2014

- "When the Safety Card is a Joker," ITS Airport Systems Planning and Design Short Course, Berkeley, CA, 11/2012
- "Costing Delay in the National Airspace System, ITS Transportation Science Seminar, Berkeley, CA 10/2010
- "Costing Delay in the National Airspace System, University of South Florida, Tampa, FL 4/2010
- "Passenger Demand for Air Transportation in a Hub-and-Spoke Network," Hebrew University, Jerusalem, Israel, 3/2009
- "Probabilistic Air Traffic Management," Boeing Embedded Humans Workshop, Berkeley, CA, 07/2008
- "Value of Flight Cancellation and Flight Cancellation Decision Making," INFORMS 2008 Annual Meeting, Washington DC, 10/2008
- "Study on the Total Cost of Delay," Transportation Research Board 2009 Annual Meetings, Washington, DC, 01/2009
- "Deterministic Queuing Analysis to Predict Delay Propagation at Airports," Transportation Research Board 2009 Annual Meetings, Washington, DC, 01/2009
- "Passenger Demand for Air Transportation in a Hub-and-Spoke Network," Special Seminar, Tel Aviv, Israel, 03/2009
- "Size, Strength, and Speed: A Comparison of US and EU Airline Schedules," INFORMS 2009, San Diego, CA, 11/2009
- "Total Delay Impact Study," NEXTOR Research Symposium, Washington, DC, 01/2010
- "Costing Delay in the National Airspace System," University of South Florida, Department of Civil Engineering, 04/2010
- "Costing Delay in the National Airspace System," NASA Ames Research Symposium, Mountain View, CA, 07/2010
- "An Assessment Framework for Collaborative En Route Resource Allocation Strategies," INFORMS 2010, Austin, TX, 10/2010
- "Costing Delay in the National Airspace System," ITS Transportation Science Seminar, Berkeley, CA, 10/2010
- "Costing Delay in the National Airspace System," 2nd Mexico Conference on Air Transport: Airport infrastructure, regulation and competition, Mexico City, Mexico, 06/2011
- "Social Welfare Justification for Market-Based Approaches for Airport Congestion Management," 2nd Mexico Conference on Air Transport: Airport infrastructure, regulation and competition, Mexico City, Mexico, 06/2011
- "Generating Probabilistic Capacity Profiles from Weather Forecasts: A Design-of-Experiments Approach," USA/Europe Air Traffic Management and Development Seminar, Berlin, Germany, 06/2011

Keynote speech, Air Transport and Operations Symposium, TU Delft, Netherlands, 06/2012

Invited lectures on the costs of flight delay, airline fuel efficiency, and operational errors in air traffic control at Civil Aviation University of China, Tianjin China, 06/2014

Invited lecture on transportation research and teaching at UC Berkeley at Tsinghua University, Beijing China, 06/2014

Invited lecture on transportation research and teaching at UC Berkeley at Southeast University, Nanjing China, 06/2014

Invited presentation on air traffic management at Civil Aviation University of China, Tianjin China, 06/2014

#### Mark HANSEN

Department of Civil and Environmental Engineering

#### BIBLIOGRAPHY

### I. Refereed Publications

#### A. Journal Articles

- 1. Hansen, M. and A. Kanafani, "International Hubbing in a Competitive Environment," Transportation-Planning and Technology, 1988, Vol. 13, pp. 3-18. (Contribution: 70%)
- 2. Hansen, M. and A. Kanafani, "Hubbing and Airline Costs," *ASCE Journal of Transportation Engineering*, 1989, Vol. 115, No. 6, pp. 581-590.
- 3. Hansen, M. "Airline Competition in a Hub-Dominated Environment: An Application of Noncooperative Game Theory," *Transportation Research-B*, 1990, Vol. 24B, No. 1, pp. 27-43.
- 4. Hansen, M. and A. Kanafani, "Airline Hubbing and Airport Economics in the Pacific Market," *Transportation Research-A*, 1990, Vol. 24A, No. 3, pp. 217-230.
- 5. Gillen, D., M. Hansen and R. Ramos, "Assessing the Alternatives to Liberalize the Canada U.S. Air Transport Bilateral," *Transportation Research Forum*, Vol. 32, No. 2, 1991.
- 6. Hansen, M. "Assessing Tiltrotor Technology: A Total Logistics Cost Approach," *Transportation Research Record 1296*, 1991, pp. 31-44.
- 7. Hansen, M. and R. Gerstein "Capital in Flight: Japanese Investment and Japanese Air Service in the United States During the 1980s," *Logistics and Transportation Review*, 1991, Vol. 27, No. 3, pp. 257-276.
- 8. Youssef, W. and M. Hansen, "Consequences of Strategic Alliances between International Airlines: The Case of Swissair and SAS," *Transportation Research 28A*, Fall 1994, Vol. 5, pp. 415-431.
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- 9. Maillebiau, E. and M. Hansen, "Demand and Consumer Welfare Impacts of International Airline Liberalisation," *Journal of Transportation Economics and Policy*, May 1995, Vol. 29, pp. 115-136.
- 10. Hansen, M., C. Porter and A. Gallardo, "The Cost of Light Rail Collision Accidents," *Transportation Research Record*, 1995, Vol. 1503, pp. 137-145.
- 11. Hansen, M. and T. Weidener, "Multiple Airport Systems in the United States: Current Status and Future Prospects," *Transportation Research Record* 1995, Vol. 1506, pp. 8-17.
- 12. Hansen, M. and M. Kiesling, "Economic Characteristics of Multiple Vehicle Delivery Tours Satisfying Time Constraints," *Transportation Research Record* 1995, Vol. 1506, pp. 61-69.
- 13. Weidner, T. and M. Hansen, "Positive Feedback Model of Multiple-Airport Systems," *Journal of Transportation Engineering*, November 1995, Vol. 121, 6.
- 14. Hansen, M. and Y. Huang, "Road Supply and Traffic in California Urban Areas," *Transportation Research A*, 31A, 3, May 1997.
- 15. **Monteiro**, **A.** and M. Hansen, "Improvements to Airport Ground Access and Behavior of Multiple Airport System: BART Extension to San Francisco International Airport, *Transportation Research Record*, November 1996, Vol. 1562.
- 16. Chira-Chavala, T., **B. Coifman, C. Porter,** and M. Hansen, "Light Rail Accident Involvement and Severity, ITS Technologies," *Transportation Research Record*, July 1996, Vol. 1521, pp.147-155.
- 17. **Mehndiratta, S.** and M. Hansen, "Analysis of Discrete Choice Data with Repeated Observations: Comparison of Three Techniques in Intercity Travel Case," Transportation Research Record, November 1997, Vol. 1607. <u>Derived from ref-proceeding no. 7.</u>
- 18. **Venter, C.** and M. Hansen, "Flexibility and Time Dependence in Activity Scheduling Models," *Transportation Research Record*, 1999, Vol. 1645, pp. 120-126. <u>Derived from ref-proceeding no. 8.</u>
- 19. Hansen, M., D. Gillen and **R. Djafarian-Tehrani**, "Aviation Infrastructure Performance and Airline Operation Cost: A Statistical Cost Estimation Approach," *Transportation Research E*, 2001, Vol. 37, pp. 1-23.

<sup>+</sup> Published since promotion to Professor

<sup>\*</sup> Published since last review

<sup>^</sup> Not available for viewing

- 20. Hansen, M., D. Gillen and **R. Djafarian-Tehrani**, "Assessing the Impact of Aviation System Performance by Using Airline Cost Functions," Transportation Research Record, 2000, Vol. 1703, pp. 16-23.
- 21. Mayet, J. and M. Hansen, "Congestion Road Pricing with Continuously Distributed Values of Time," *Journal of Transportation Economics and Policy*, 2000, Vol. 34, pp. 359-370.
- 22. Barnett, A., R. Shumsky, M. Hansen, A. Odoni and G. Gosling, "Safe at Home? An Experiment in Domestic Airline Security," *Operations Research*, 2001, Vol. 49, pp. 181-195.
- 23. Hansen, M., "Micro-level Analysis of Airport Delay Externalities using Deterministic Queuing Models: A Case Study," *Journal of Air Traffic Management*, 2002, Vol. 8, pp. 73-87. Derived from nonref-report no. 25. <u>Derived from nonref-report no. 25.</u>
- 24. Gosling, G. and M. Hansen, "Prospects for Increasing Average Aircraft Size at Congested Airports," *Transportation Research Record*, 2001, Vol. 1744, pp. 1-8. Derived from nonref-report no. 25. <u>Derived from nonref-report no. 25.</u>
- 25. Hansen, M., A. Mukherjee, D. Knorr, and D. Howell, "Effect of T-TMA on Capacity and Delay at Los Angeles International Airport," *Transportation Research Record*, 2002, Vol. 1788, pp. 43-48.
- 26. Cervero, R. and M. Hansen, "Induced Travel Demand and Induced Road Investment: A Simultaneous Equation Analysis," *Journal of Transport Economics and Policy*, January 2002, Vol. 36, pp. 469-490.
- 27. Rakas, J., M. Hansen, **W. Jirajaruporn and T. Bolic**, "User Request Evaluation Tool (URET) and Controller-Pilot Data Link Communications (CPDLC) Integration Benefits Assessment," *Transportation Research Record*, January 2003, Vol. 1850, pp. 20-29.
- 28. **Wei, W.** and M. Hansen, "Cost Economics of Aircraft Size," *Journal of Transport Economics and Policy*, January 2003, Vol. 37, pp. 279-296.
- 29. Hansen, M. and **Y. Zhang**, "Safety of Efficiency: Link Between Operational Performance and Operational Errors in the National Airspace System," *Transportation Research Record*, January 2004, Vol. 1888, pp. 15-21.
- 30. Hansen, M. and D. Peterman, "Throughput Effects of Time-Based Metering at Los Angeles International Airport," *Transportation Research Record*, January 2004, Vol. 1888, pp. 59-65.

<sup>+</sup> Published since promotion to Professor

<sup>\*</sup> Published since last review

<sup>^</sup> Not available for viewing

- 31. Hansen, M., "Post-deployment Analysis of Capacity and Delay Impacts of an Airport Enhancement: Case of a New Runway at Detroit," *Air Traffic Control Quarterly*, January 2004, Vol. 12, pp. 339-365.
- 32. **Wei, W.** and M. Hansen, "Impact of Aircraft Size and Seat Availability on Airlines' Demand and Market Share in Duopoly Markets," *Transportation Research E*, January 2005, Vol. 41, pp. 315-327.
- 33. Hansen, M. and **Y. Zhang**, "Operational Consequences of Alternative Airport Demand Management Policies: The Case of LaGuardia Airport," *Transportation Research Record*, 2005, 1915, pp. 95-104. Nonref-proceeding no. 5 was derived from this publication. Nonref-proceeding no. 5 was derived from this publication. (""In press"" during last review)
- 34. Hansen, M. and C. McAndrews, "Challenges of Measuring the Performance of FAA's Safety Oversight System," *Transportation Research Record*, 2005, 1937, pp. 31-36.
- 35. Hansen, M. and C. Y. Hsiao, "Air Transportation Network Flows: an Equilibrium Model," *Transportation Research Record*, 2005, Vol. 1915, pp. 12-19.
- 36. Hansen, M. and C. Y. Hsiao, "Going South? An Econometric Analysis of US Airline Flight Delays from 2000 to 2004," *Transportation Research Record*, 2005, Vol. 1915, pp. 89-94.
- 37. Hansen, M. and **T. Bolic**, "Automation Adoption and Adaptation, URET Case Study," *Transportation Research Record*, 2005, 1915, pp. 62-68.
- 38. Rakas, J., **H. Yin** and M. Hansen, "Procedural and Operational Consequences of Navigational Equipment Outages: Exploration of Airport Performance," *ASCE Journal of Transportation Engineering*, 2005, Vol. 131, No. 10, pp. 790-801, doi: 10.1061/(ASCE) 0733-947X(2005)131:10(790). (Contribution 50%) (Contribution: 50%)
- + 39. Wei, W. and M. Hansen, "An Aggregate Demand Model of Air Passenger Traffic in a Hub-and-Spoke Network," *Transportation Research A*, Policy and Practice, 2006, Vol 40A, No. 10, pp.841-851, doi: 10.1016/j.tra.2005.12.012. (Contribution 50%) (Contribution: 50%)
- + 40. Hansen, M. and **W. Wei**, "Multivariate Analysis of the Impacts of NAS Investments: A Case Study of a Capacity Expansion at Dallas-Fort Worth Airport," *Journal of Air Transport Management*, 2006, Vol. 12, No. 5, pp. 227-235, doi: 10.1016/j.jairtraman.2006.05.002. (Contribution: 50%)
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- + 41. Hansen, M. and C. Y. Hsiao, "Econometric Analysis of U. S. Airline Flight Delays with Time-of Day Effects," *Transportation Research Record*, 2006, Vol. 1951, pp.104-112.
- + 42. Hansen, M. and **B. Liu**, "Scenario-Based Management of Air Traffic Flow: Developing and Using Capacity Scenario Trees," *Transportation Research Record*, 2006, Vol. 1951, pp. 113-121. <u>Ref-journal no. 45 was derived from this publication.</u> Book no. 1 was derived from this publication.
- + 43. **Wei, W.** and M. Hansen, "Airlines' Competition in Aircraft Size and Service Frequency in Duopoly Markets," *Transportation Research E*, 2007, Vol. 43E, pp. 409-424, doi: 10.1016/j.tre.2006.01.002.
- + 44. **Mukherjee, A.** and M. Hansen, "Dynamic Stochastic Model for Single Airport Ground Holding Problem," *Transportation Science*, 2007, Vol. 41, No. 4, pp. 444-456, doi: 10.1287/trsc.1070.0210.
- + 45. **Liu, B., A. Mukherjee** and M. Hansen, "Scenario-Based Air Traffic Flow Management: from Theory to Practice," *Transportation Research B*, 2008, Vol. 42B, No. 7-8, pp. 685-702, doi: 10.1016/j.trb.2008.01.002. <u>Derived from ref-journal no. 42.</u> <u>Book no. 1 was derived from this publication.</u>
- + 46. Clever, R. and M. Hansen, "Interaction of Air and High-Speed Rail in Japan," *Transportation Research Record*, 2008, Vol. 2043, pp. 1-12, doi: 10.3141/2043-01.
- + 47. **Zhang, Y.** and M. Hansen, "Real-Time Intermodal Substitution: Strategy for Airline Recovery from Schedule Perturbation and for Mitigation of Airport" Congestion," *Transportation Research Record*, 2008, Vol. 2052, pp. 90-99, doi: 10.3141/2052-11.
- + 48. Hsu, C.-I., H.-C. Li, P. Liao and M. Hansen, "Responses of Air Cargo Carriers to Industrial Changes," *Journal of Air Transport Management*, 2009, Vol. 15, pp. 330-336, doi: 10.1016/j.jairtraman.2009.06.002. (Contribution: 30%)
- + 49. **Xiong, J.** and M. Hansen, "Value of Flight Cancellation and Cancellation Decision Modeling: Ground Delay Program Postoperation Study," *Transportation Research Record*, 2009, Vol. 2106, pp. 83-89, doi: 10.3141/2106-10.
- + 50. Mukherjee, A. and M. Hansen, "A Dynamic Rerouting Model for Air Traffic Flow Management," *Transportation Research Part B*, 2009, Vol. 43, pp. 159-171, doi: 10.1016/j.trb.2008.05.011. (Contribution: 50%)
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- + 51. **Gupta, G.**, J. Rakas and M. Hansen, "Estimating Infrastructure Condition from a Biased Sample," *Journal of Infrastructure Systems*, December 2009, Vol. 15, No. 4, pp. 383-393, doi: 10.1061/(ASCE)1076-0342(2009)15:4(383). (Contribution: 90%)
- + 52. **Kim, A.** and M. Hansen, "Validation of Runway Capacity Models," *Transportation Research Record*, 2010, Vol. 2177, pp. 69-77, doi: 10.3141/2177-09. Derived from refproceeding no. 35. Derived from ref proceeding no. 35.
- + 53. **Ryerson, M.S.** and M. Hansen, "The Potential of Turboprops for Reducing Aviation Fuel Consumption," *Transportation Research Part D*, 2010, Vol. 15, pp. 305-314, doi: 10.1016/j.trd.2010.03.003.
- + 54. **Gupta, G.**, A. Goodchild and M. Hansen, "A Competitive, Charter Air-Service Planning Model for Student Athlete Travel," *Transportation Research Part B*, 2011, Vol. 45, pp. 128-149, doi: 10.1016/j.trb.2010.06.002. (Contribution: 75%)
- + 55. **Hsiao**, C.-Y. and M. Hansen, "A Passenger Demand Model for Air Transportation in a Hub-and-Spoke Network," *Transportation Research Part E*, 2011, In Press, doi: 10.1016/j.tre.2011.05.012. <u>Derived from ref-proceeding no. 23.</u> <u>Derived from ref-proceeding no. 23.</u>
- + 56. **Ryerson, M.S.** and M. Hansen, "Capturing the Impact of Fuel Price on Jet Aircraft Operating Costs with Leontief Technology and Econometric Models," *Transportation Research Part C*, 2011, doi: 10.1016/j.trc.2011.05.015. <u>Derived from ref-proceeding no. 40.</u> <u>Derived from ref-proceeding no. 40.</u>
- + 57. **Yoon, Y.**, M. Hansen and M.O. Ball, "Optimal Route Decision with a Geometric Ground-Airborne Hybrid Model Under Weather Uncertainty," *Transportation Research Part E*, 2011, doi: 10.1016/j.tre.2011.05.005.

  (Contribution: 90%)
- + 58. **Zou, B.** and M. Hansen, "Flight Delays, Capacity Investment and Social Welfare under Air Transport Supply-Demand Equilibrium," *Transportation Research* Part A, July 2012, Vol. 46, pp. 965-980, doi: 10.1016/j.tra.2012.02.015. http://www.sciencedirect.com/science/article/pii/S096585641200033X
- \* 59. Mukherjee, A, M. Hansen, S. Grabbe "Ground Delay Program Planning Under Uncertainly in Airport Capacity," *Transport Planning and Technology*, August 2012, Vol. 35, pp. 611-628, doi: <a href="http://dx.doi.org/10.1080/03081060.2012.710031">10.1080/03081060.2012.710031</a> (Contribution: 50%)

<sup>+</sup> Published since promotion to Professor

<sup>\*</sup> Published since last review

<sup>^</sup> Not available for viewing

- + 60. **Zou, B.** and M. Hansen, "Impact of Operational Performance on Air Carrier Cost Structure: Evidence from US Airlines," *Transportation Research Part E*, September 2012, Vol. 48, pp. 1032-1048, doi: 10.1016/j.tre.2012.03.006. http://www.sciencedirect.com/science/article/pii/S1366554512000269
- + 61. **Nikoleris, T.** and M. Hansen, "Queuing Models for Trajectory-Based Aircraft Operations," *Transportation Science*, November 2012, Vol. 46, pp. 501-511, doi: 19.1287/trsc.1120.0411. http://pubsonline.informs.org/doi/pdf/10.1287/trsc.1120.0411
- + 62. Swaroop, P., **B. Zou**, M. Ball and M. Hansen, "Do More US Airports Need Slot Controls? A Welfare Based Approach to Determine Slot Levels," *Transportation Research Part B*, November 2012, Vol. 46, pp. 1239-1259, doi: 10.1016/j.trb.2012.03.002. (Contribution: 50%) http://www.sciencedirect.com/science/article/pii/S0191261512000380
- + 63. **Liu, Y., B. Zou** and M. Hansen, "Average Gauge Differences between the US and Europe and their Operational Implications," *Journal of Air Transport Management*, June 2013, Vol. 29, pp. 1-10, doi: 10.1016/j.jairtraman.2012.12.001. http://www.sciencedirect.com/science/article/pii/S0969699712001548
- + 64. **Kim, A.** and M. Hansen, "A Framework for Assessment of Collaborative En Route Resource Allocation Strategies," *Transportation Research Part C*, August 2013, Vol. 33, pp. 324-339, doi: 10.1016/j.trc.2012.04.015. http://www.sciencedirect.com/science/article/pii/S0968090X12000654
- + 65. **Buxi, G.** and M. Hansen, "Generating Day-of-operation Probabilistic Capacity Scenarios from Weather Forecasts," *Transportation Research Part C*, August 2013, Vol. 33, pp. 153-166, doi: 10.1016/j.trc.2012.12.006. <u>Derived from ref-journal no. 38</u> http://www.sciencedirect.com/science/article/pii/S0968090X12001520
- + 66. **Xiong, J.** and M. Hansen, "Modelling Airline Flight Cancellation Decisions," *Transportation Research Part E*, September 2013, Vol. 56, pp. 64-80, doi: 10.1016/j.tre.2013.05.003. https://drive.google.com/file/d/0B1kZy323Hs8oZ29NNlBkbjM4QWM/edit?usp=sharing
- + 67. **Zou, B.**, G. Buxi and M. Hansen, "Optimal 4-D Trajectories in a Contrail-Sensitive Environment," *Networks and Spatial Economics*, October 2013, doi: 10.1007/s11067-
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

013-9210-x.

https://drive.google.com/file/d/0B1kZy323Hs8oSDNvUGwxd2VoMzQ/edit?usp=sharing

- + 68. **Kim, A.** and M. Hansen, "Deconstructing Delay: A Non-parametric Approach to Analyzing Delay in Single Server Queuing Systems," *Transportation Research Part B*, December 2013, Vol. 58, pp. 119-133, doi: /10.1016/j.trb.2013.10.001. http://www.sciencedirect.com/science/article/pii/S0191261513001744
- + 69. **Zou, B., M. Elke**, M. Hansen and N. Kalfe, "Evaluating Air Carrier Fuel Efficiency in the US Airline Industry," *Transportation Research Part A*, January 2014, Vol. 59, pp. 306-330, doi: 10.1016/j.tra.2013.12.003. http://www.sciencedirect.com/science/article/pii/S0965856413002413
- + 70. **Liu, Y.** and M. Hansen, "Ground Delay Program Performance Evaluation," *Transportation Research Record*, June 2014, Vol. 2400, pp. 54-64, doi: 10.3141/2400-07. http://trb.metapress.com/content/w20m04t665w62421/fulltext.pdf
- + 71. **Liu, Y.**, M. Hansen, G. Gupta, W. Malik and Y. Jung, "Predictability Impacts of Airport Surface Automation," *Transportation Research Part C*, July 2014, Vol. 44, pp. 128-145, doi: 10.1016/j.trc.2014.03.010. <u>Derived from ref-journal no. 61</u> <a href="http://www.sciencedirect.com/science/article/pii/S0968090X14000825">http://www.sciencedirect.com/science/article/pii/S0968090X14000825</a>
- \* 72. Hao, L. and M. Hansen, "Block Time Reliability and Scheduled Block Time Setting," *Transportation Research B*, August 2014, Vol. 69, pp. 98-111, doi: 10.1016/j.trb.2014.08.008. (Was not credited at the time of last review) http://www.sciencedirect.com/science/article/pii/S019126151400143X?via%3Dihub
- + 73. **Zou, B.** and M. Hansen, "Flight Delay Impact on Airfare and Flight Frequency: A Comprehensive Assessment," *Transportation Research Part E*, September 2014, Vol. 69, pp. 54-74, doi: 10.1016/j.tre.2014.05.016. http://www.sciencedirect.com/science/article/pii/S1366554514000933
- + 74. Hao, L., M. Hansen, J. Post and Y. Zhang, "New York, New York: Two Ways of Estimating the Delay Impact of New York Airports," *Transportation Research E*, October 2014, Vol. 70, pp. 245-260, doi: 10.1016/j.tre.2014.07.004. http://www.sciencedirect.com/science/article/pii/S1366554514001252
- + 75. Soler, M., B. Zou and M. Hansen, "Flight Trajectory Design in the Presence of Contrails: Application of a Multiphase Mixed-Integer Optimal Control Approach," *Transportation Research C*, November 2014, Vol. 48, pp. 172-194, doi: 10.1016/j.trc.2014.08.009. (Contribution: 25%)

  http://www.sciencedirect.com/science/article/pii/S0968090X14002253
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- \* 76. **Ryerson, M.**, M. Hansen and J. Bonn, "Time to burn: Flight delay, terminal efficiency, and fuel consumption in the National Airspace System," *Transportation Research A*, November 2014, Vol. 69, pp. 286-298, doi: 10.1016/j.tra.2014.08.024. (Contribution: 95%) Substantially revised from I.B.42 <a href="http://www.sciencedirect.com/science/article/pii/S0965856414002043?via%3Dihub">http://www.sciencedirect.com/science/article/pii/S0965856414002043?via%3Dihub</a>
- + 77. **Ryerson, M.** and M. Hansen, "Optimal Intercity Transportation Services With Heterogeneous Demand and Variable Fuel Price," *IEEE Systems Journal*, December 2014, Vol. 8, pp. 1158-1168, doi: 10.1109/JSYST.2013.2249213. (Was credited at the time of last review) <a href="https://drive.google.com/a/berkeley.edu/file/d/0B1kZy323Hs8oZE53TEF2RjJTYUU/edit">https://drive.google.com/a/berkeley.edu/file/d/0B1kZy323Hs8oZE53TEF2RjJTYUU/edit</a>
- \* 78. Barnett, A., M. Ball, G. Donohue, M. Hansen, A. Odoni and A. Trani, "Collision course? The North Airfield Safety Study at Los Angeles International Airport (LAX)," *Transportation Research A*, March 2015, Vol. 77, pp. 14-34, doi: 10.1016/j.tra.2015.03.003. (Contribution: 30%) Adapted with substantial new analysis from II.A.34 <a href="http://www.sciencedirect.com/science/article/pii/S0965856415000452?via%3Dihub">http://www.sciencedirect.com/science/article/pii/S0965856415000452?via%3Dihub</a>
- \* 79. **Liu, Y** and M. Hansen, "Airline Competition and Market Frequency: A Comparison of the S-Curve and Schedule Delay Models," *Transportation Research B*, April 2015, Vol. 78, pp. 301-317, doi: 10.1016/j.trb.2015.04.012.

  <a href="http://www.sciencedirect.com/science/article/pii/S0191261515000946?via%3Dihub">http://www.sciencedirect.com/science/article/pii/S0191261515000946?via%3Dihub</a>
- \* 80. **Kim, A.** and M. Hansen, "Some Insights into a Sequential Resource Allocation Mechanism for En Route Air Traffic Management," *Transportation Research B*, May 2015, Vol. 79, pp. 1-15, doi: 10.1016/j.trb.2015.05.016. http://www.sciencedirect.com/science/article/pii/S0191261515001186?via%3Dihub
- \* 81. Ryerson, M., M. Hansen, **L. Hao** and **M. Seelhorst**, "Landing on Empty: Estimating the Benefits from Reducing Fuel Uplift in US Civil Aviation," *Environ. Res. Lett. 10*, August 2015, 094002, pp. 1-11, doi: 10.1088/1748-9326/10/9/094002. (Contribution: 50%) <a href="http://iopscience.iop.org/article/10.1088/1748-9326/10/9/094002/meta">http://iopscience.iop.org/article/10.1088/1748-9326/10/9/094002/meta</a>
- \* 82. **Hao, L.**, M. Hansen and M. Ryerson, "Fueling for Contingencies: The Hidden Cost of Unpredictability in the Air Transportation System," *Transportation Research D*, 2016, Vol. 44, pp. 199-210, doi: 10.1016/j.trd.2016.02.016. (Contribution 75%) Substantially revised from I.B.62
  <a href="http://www.sciencedirect.com/science/article/pii/S1361920916000250?via%3Dihub">http://www.sciencedirect.com/science/article/pii/S1361920916000250?via%3Dihub</a>
- \* 83. Marzuoli, A., E. Boidot, E. Feron, P. B.C van Erp, **A. Ucko**, A. Bayen and M. Hansen, "Multimodal Impact Analysis of an Airside Catastrophic Event: A Case Study of the Asiana Crash," *IEEE Transactions on Intelligent Transportation Systems*, February 2016,
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

Vol. 17, No. 2, pp. 587-603, doi: 10.1109/TITS.2015.2483743.

(Contribution: 30%)

http://ieeexplore.ieee.org/document/7322239/

- \* 84. Liu, Y. and M. Hansen, "Incorporating Predictability into Cost Optimization for Ground Delay Programs," *Transportation Science*, February 2016, Vol. 50, No. 1, pp. 132–149. http://pubsonline.informs.org/doi/10.1287/trsc.2015.0594
- \* 85. Nikoleris, T. and M. Hansen, "Effect of Trajectory Prediction and Stochastic Runway Occupancy Times on Aircraft Delays," *Transportation Science*, February 2016, Vol. 50, No. 1, pp. 110–119, doi: 10.1287/trsc.2015.0599. http://pubsonline.informs.org/doi/10.1287/trsc.2015.0599
- \* 86. **Lu Hao**, M.S. Ryerson, **L. Kang** and M. Hansen, "Estimating Fuel Burn Impacts of Taxi-out Delay with Implications for Gate-hold Benefits," *Transportation Research C*, May 2016, Vol. 80, pp. 454-466, doi: 10.1016/j.trc.2016.05.015. (Contribution: 80%) Substantially revised from I.B.67 <a href="http://www.sciencedirect.com/science/article/pii/S0968090X16300523?via%3Dihub">http://www.sciencedirect.com/science/article/pii/S0968090X16300523?via%3Dihub</a>
- \* 87. Marzuoli, A., E. Feron, M. Hansen, A. Bayen, E. Boidot, P. Colomar and M. Guerpillon, "Improving Disruption Management With Multimodal Collaborative Decision-Making: A Case Study of the Asiana Crash and Lessons Learned," *IEEE Intelligent Transportation Systems*, October 2016, Vol. 17, No. 10, pp. 2699-2717, doi: 10.1109/TITS.2016.2536733. (Contribution:20%) http://ieeexplore.ieee.org/document/7457252/
- \* 88. Sun, X., S. Wandelt, M. Hansen and **A. Li**, "Multiple Airport Regions Based on Inter-Airport Temporal Distances," *Transportation Research E*, March 2017, Vol. 101, pp. 84-98, doi: 10.1016/j.tre.2017.03.002.

  (Contribution: 40%)

  <a href="http://www.sciencedirect.com/science/article/pii/S1366554516308109?via%3Dihub">http://www.sciencedirect.com/science/article/pii/S1366554516308109?via%3Dihub</a>
- \* 89. **Kang, L.** and M. Hansen, "Behavioral Analysis of Airline Scheduled Block Time Adjustment," *Transportation Research E*, April 2017, Vol. 103, pp. 56-68, doi: 10.1016/j.tre.2017.04.004. Based on I.B.72 with but with a more sophisticated model. <a href="http://www.sciencedirect.com/science/article/pii/S1366554516306366?via%3Dihub">http://www.sciencedirect.com/science/article/pii/S1366554516306366?via%3Dihub</a>
- \* 90. **Gorripaty, S.**, **Y. Liu**, M. Hansen and P. Pozdnukhov, "Identifying Similar Days in Air Traffic Management," *Journal of Air Transport Management*, 2017, In Press., pp. 1-12, doi: 10.1016/j.jairtraman.2017.06.005. Revised from I.B.73 (Contribution: 90%) http://www.sciencedirect.com/science/article/pii/S0969699717302752?via%3Dihub
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- \* 91. Gorripaty, S. and M. Hansen, "Representative Weather Profiles in Airport Planning," Transportation Research Record, 2017, pp. 21-28, doi: 10.3141/2603-03. http://trrjournalonline.trb.org/doi/10.3141/2603-03
- \* 92. Talebian, A., B. Zou, and M. Hansen, "Assessing the Impacts of State-Supported Rail Services on Local Population and Employment: A California Case Study," Transport Policy, Under Revision, 2017 (Contribution: 20%)
- \* 93. **Kang, L.** and M. Hansen, "Assessing the Impact of Tactical Airport Surface Operations on Airline Schedule Block Time Setting," Transportation Research Part C, 2017, Under revision. https://drive.google.com/open?id=0B1kZv323Hs8oX3p0MEFKZDdKTzA
- \* 94. Kang, L., M. Hansen and M. Ryerson, "Predictability Evaluation Based on Gate-In Fuel Prediction and Cost-to-Carry Estimation," Journal of Air Transport Management, Under Revision, 2017. Revised from I.B.68 (Contribution: 80%) https://drive.google.com/open?id=0B1kZy323Hs8oMUxyWVkxZHBYcTg
- \* 95. Ball, M., F. Berardino and M. Hansen, "The Use of Auctions for Allocating Airport Access Rights," Transportation Research Part A, 2017, Accepted. (Contribution: 25%)
- \* 96. Wenzhe Ding, Yu Zhang, and Mark Hansen, "Downstream Impacts of Flight Rerouting," Transportation Research Part C, Submitted (Contribution including students: 75%).

## **B.** Papers in Refereed Conference Proceedings

- 1. Caccavari, C., J. Montgomery and M. Hansen, "The National Noise Assessment Program: A Nationwide Approach to Noise Monitoring," Noisexpo Proceedings, 1981. (Contribution: 90%)
- 2. Hansen, M., "U.S. Intercity Transportation Policy: 1806-1990," in David Gillen, Canadian Transportation Policy, John Deutsch Institute for the Study of Economic Policy, 1991.
- 3. Gillen, D. and M. Hansen, "Airline Capacity Adjustment and Airport Capacity Management," World Conference of Transportation Research, Lyon, France, June 1992, 30 pp. (Contribution: 50%)

- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- 4. Hansen, M., "Does Airline Hubbing Benefit Hub Regions?" Air Transportation Research Group, First Annual Meeting, Vancouver, Canada, July 1997.
- 5. Mehndiratta, S. and M. Hansen, "Aggregate Influence of Time-of-Day Effects in Intercity Business Travel," International Association for Travel Behavior Research Conference, September 1997.
- 6. Hansen, M. "Freeway Expansion and Land Development," Transportation Research Board, 77th Annual Meeting, January 1998.
- 7. Mehndiratta, S. and M. Hansen, "Time-of-Day Effects in Intercity Business Travel," Transportation Research Board, 77th Annual Meeting, January 1998. <u>Refjournal no. 17 was derived from this publication.</u> <u>Archival Journal I.A.17. derived from this conference.</u>
- 8. Venter, C. and M. Hansen, "Flexibility and Time Dependence in Activity Scheduling Models," Transportation Research Board, 77th Annual Meeting, January 1998. <u>Refjournal no. 18 was derived from this publication.</u> <u>Archival Journal I.A.18. derived from this conference.</u>
- Nilim, A., L.E. Ghaoui, M. Hansen and V. Duong, "Trajectory-Based Air Traffic Management (TB-ATM) Under Weather Uncertainty," ATM 2001, Santa Fe, New Mexico, 2001.
- 10. Hansen, M. and **T. Bolic**, "Normalization of Airport and Terminal Area Operational Performance: A Case Study of Los Angeles International Airport," ATM 2001, Santa Fe, New Mexico, 2001.
- 11. Hansen, M. and **G. Gosling**, "Aviation System Changes Since September 2001 and Implications for Airport Development Plans," ASCE International Air Transportation Conference, Orlando, FL, 2002.
- 12. Rakas, J. and M. Hansen, "Methodology for Estimating Terminal Airspace Service Availability and System Effectiveness," AIAA's 2nd Annual Aviation Technology, Integration, and Operations (ATIO) Forum, Los Angeles, CA, October 2002, pp. 1-11.
- 13. Rakas, J, **H. Yin** and M. Hansen, "Airport Operations: Modeling and Analysis during Equipment Outages," the AIAA's 3rd Annual Aviation Technology, Integration, and Operations (ATIO) Technical Forum, Denver, CO, January 2003, pp. 1-10.
- 14. Hansen, M. and **J. Rakas**, "User Request Evaluation Tool (URET) and Controller-Pilot Data link Communications (CPDLC) Integration Benefits Assessment," the 82nd Annual

<sup>+</sup> Published since promotion to Professor

<sup>\*</sup> Published since last review

<sup>^</sup> Not available for viewing

- Meeting of the Transportation Research Board, Washington, DC, January 2003, Paper No. 03-4238.
- 15. Hanse, M., **J. Rakas**, et al, "Models for the National Airspace System Infrastructure Performance," the AIAA's 4th Annual Aviation Technology, Integration, and Operations (ATIO) Technical Forum, Chicago, IL, September 2004. (Contribution: 25%)
- 16. **Mukherjee, A.** and M. Hansen, "Dynamic Stochastic Optimization Model for Air Traffic Flow Management with En Route and Airport Constraints," 6th FAA/EUROCONTROL Seminar on ATM Research and Development, Baltimore, MD, June 2005, pp. 1-9.
- 17. **Bolic, T.** and M. Hansen, "User Request Evaluation Tool (URET) Adoption and Adaptation, Three Center Case Study," 6th FAA/EUROCONTROL Seminar on ATM Research and Development, Baltimore, MD, June 2005, pp. 1-7.
- 18. Hansen, M. and **Y. Zhang**, "The Link Between Operational Performance and Operational Errors in the National Airspace System," 6th FAA/EUROCONTROL Seminar on ATM Research and Development, Baltimore, MD, June 2005, pp. 15-21.
- 19. Rakas, J., **T. Bolic** and M. Hansen, "Controller-Pilot Radio Channel Utilization and Cognitive Issues," 6th FAA/EUROCONTROL Seminar on ATM Research and Development, Baltimore, MD, June 2005, pp. 1-10. (Contribution: 25%)
- + 20. **Zhang, Y.** and M. Hansen, "Real-Time Inter-modal Substitution as an Airport Congestion Management Strategy," Transportation Research Board Annual Meetings, January 2007.
- + 21. Clever, R. and M. Hansen, "Airport and Station Accessibility as a Determinant of Mode Choice," Transportation Research Board Annual Meetings, January 2007.
- + 22. Hansen, M. and C. Y. Hsiao, "Fleet Mix and Administrative Slot Allocation-The Case of LaGuardia Airport," Air Transportation Research Society World Conference, May 2006. Not Previously Listed.
- + 23. Hansen, M. and C. Y. Hsiao, "Passenger Demand for Air Transportation in Hub-and-Spoke Network," Air Transportation Research Society World Conference, May 2006. Ref-journal no. 56 was derived from this publication. Not Previously Listed.
- + 24. Hansen, M. and **Y. Zhang**, "Real-time Inter-modal Substitution as an Airport Congestion Management Strategy," Air Transportation Research Society World Conference, May 2006. Not Previously Listed.
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- + 25. Liu, B. and M. Hansen, "Scenario-Free Sequential Decision Model for the Single Airport Ground Holding Problem," Air Transportation Research Society World Conference, June 2007. <u>Ref-proceeding no. 26 was derived from this publication.</u> Book no. 1 was derived from this publication.
- + 26. **Liu, B.** and M Hansen, "Scenario-Free Sequential Decision Model for the Single Airport Ground Holding Problem," 7th FAA/EUROCONTROL Seminar on ATM Research and Development, July 2007. <u>Derived from ref-proceeding no. 25.</u>
- + 27. **Xiong, J.** and M Hansen, "Weather Normalization for Assessing National Airspace System (NAS)Performance," 7th FAA/EUROCONTROL Seminar on ATM Research and Development, July 2007. <u>Derived from nonref-proceeding no. 6.</u>
- + 28. **Clever, R.** and M Hansen, "The Interaction of Air and Rail in Japan," TRB Annual Meeting, January 2008. <u>Derived from ref-proceeding no. 28.</u> <u>Ref-proceeding no. 28 was derived from this publication.</u>
- + 29. **Zhang, Y.** and M Hansen, "Tactical Intermodal Substitution: Strategy for Airline Schedule Perturbation Recovery," TRB Annual Meeting, January 2008.
- + 30. **Smirti, M.**, M. Hansen and **X. Chen**, "Modeling the Operational Impact of Air Traffic Control Automation Tools: A Case Study of Traffic Management Advisor," International Conference on Research in Air Transportation, June 2008.
- + 31. **Kim**, **A.** and M. Hansen, "Deconstructing Delay: A Case Study of Demand and Throughput at the New York Airports," International Conference on Research in Air Transportation, June 2008.
- + 32. **Yoon, Y.** and M. Hansen, "Modeling Stochastic Evolution of Runway Capacity using Data Mining Concepts," International Conference on Research in Air Transportation, June 2008.
- + 33. **Gupta, G.**, J. Rakas and M. Hansen, "Estimation of Aviation Infrastructure Condition from a Biased Sample," International Conference on Research in Air Transportation, June 2008.

(Contribution: 75%)

+ 34. Hansen, M., **T. Nikoleris**, D. Lovell, K. Vlachou and A. Odoni, "Use of Queuing Models to Estimate Delay Savings from 4D Trajectory Precision," Eighth USA/Europe Air Traffic Management Research and Development Seminar, 2009. (Contribution: 70%)

<sup>+</sup> Published since promotion to Professor

<sup>\*</sup> Published since last review

<sup>^</sup> Not available for viewing

- + 35. **Kim, A.** and M. Hansen, "Validation of Runway Capacity Models," Eighth USA/Europe Air Traffic Management Research and Development Seminar, 2009. <u>Ref-journal no. 53</u> was derived from this publication.
- + 36. **Smirti, M.** and M. Hansen, "Assessing the Role of Operating, Passenger, and Infrastructure Costs in Fleet Planning under Fuel Price Uncertainty," Eighth USA/Europe Air Traffic Management Research and Development Seminar, 2009.
- + 37. **Zhang, Y.** and M. Hansen, "Regional GDP -- Extending Ground Delay Programs to Regional Airport Systems," Eighth USA/Europe Air Traffic Management Research and Development Seminar, 2009.
- + 38. **Buxi, G.S.** and M. Hansen, "Generating Day-of-Operation Probabilistic Capacity Profiles from Weather Forecasts," 4th International Conference on Research in Air Transportation, June 2010, Budapest.
- + 39. **Nikoleris, T.** and M. Hansen, "Queueing Models for Operations in NextGen," 4th International Conference on Research in Air Transportation, June 2010, Budapest.
- + 40. **Ryerson, M.S.** and M. Hansen, "Capturing the Impact of Fuel Price on Jet Aircraft Operating Costs with Engineering and Econometric Models," 4th International Conference on Research in Air Transportation, June 2010, Budapest. <u>Ref-journal no. 57 was derived from this publication.</u>
- + 41. **Yoon, Y.**, M. Hansen and M.O. Ball, "Optimal Route Generation with Geometric Recourse Model Under Weather Uncertainty," 4th International Conference on Research in Air Transportation, June 2010, Budapest. (Contribution: 90%)
- + 42. **Ryerson, M.S.**, M. Hansen and J. Bonn, "Fuel Consumption and Operational Performance," Ninth USA/Europe Air Traffic Management Research and Development Seminar, April 2011.

  (Contribution: 95%)
- + 43. Prats, X. and M. Hansen, "Green Delay Programs: Absorbing ATFM Delay by Flying at Minimum Fuel Speed," Ninth USA/Europe Air Traffic Management Research and Development Seminar, April 2011.

  (Contribution: 50%)
- + 44. **Buxi, G.** and M. Hansen, "Genearating Probabilistic Capacity Profiles from Weather Forecast: A Design-of-Experiment Approach," Ninth USA/Europe Air Traffic Management Research and Development Seminar, April 2011.
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- + 45. **Liu, Y.** and M. Hansen, "Aircraft Gauge Differences Between U.S. and Europe and Operational Implications," TRB Annual Meeting, January 2012, paper 13-2860. https://drive.google.com/file/d/0B1kZy323Hs8odUpGZUViaExWTmc/edit?usp=sharing
- + 46. **Seelhorst, M.** and M. Hansen, "Modeling Operational Errors at Air Traffic Control Facilities," TRB Annual Meeting, January 2012, paper 12-4662. <a href="https://drive.google.com/a/berkeley.edu/file/d/0B1kZy323Hs8od25xTzQ5NWxXV0k/edit?usp=sharing">https://drive.google.com/a/berkeley.edu/file/d/0B1kZy323Hs8od25xTzQ5NWxXV0k/edit?usp=sharing</a>
- + 47. **Liu, Y.** and M. Hansen, "Performance Trades and Cost Optimization and Ground Delay Programs: Single Airport Case," 5th International Conference on Research in Air Transportation, Berkeley, CA, May 2012. http://www.icrat.org//icrat/2012/Author/yiliu978/FINAL-342-cfp-liu.pdf
- + 48. **Seelhorst, M.** and M. Hansen, "Flight Cancellation Behavior and Delay Savings," 5th International Conference on Research in Air Transportation, Berkeley, CA, May 2012. <a href="http://www.icrat.org//icrat/2012/Author/MichaelSeelhorst267/FINAL-423-cfp-Seelhorst.pdf">http://www.icrat.org//icrat/2012/Author/MichaelSeelhorst267/FINAL-423-cfp-Seelhorst.pdf</a>
- + 49. Ryerson, M., M. Hansen and J. Bonn, "Validating Aircraft Performance Models with Airline Data," 5th International Conference on Research in Air Transportation, Berkeley, CA, May 2012. <a href="http://www.icrat.org/icrat/2012/Author/MeganRyerson488/FINAL-410-cfp-Ryerson.pdf">http://www.icrat.org/icrat/2012/Author/MeganRyerson488/FINAL-410-cfp-Ryerson.pdf</a>
- + 50. **Buxi, G., B. Zou** and M. Hansen, "Optimal 4-D Aircraft Trajectories in a Contrail Sensitive Environment," 5th International Conference on Research in Air Transportation, Berkeley, CA, May 2012. http://www.icrat.org/icrat/2012/Author/Gurkaranbuxi544/FINAL-429-cfp-buxi.pdf
- + 51. **Yoon, Y.** and M. Hansen, "Value of Better Weather Information in the Probabilistic Air Trafi¬□c Flow Management: an Application of the Geometric Recourse Model (GRM)," 5th International Conference on Research in Air Transportation, Berkeley, CA, May 2012.

  http://www.icrat.org//icrat/2012/Author/YoonjinYoon894/FINAL-452-cfp-Yoon.pdf
- + 52. **Hao, L.**, M. Hansen, J. Post and P. Ramsey, "New York, New York: Two Ways of Estimating the Delay Impact of New York Airports," 5th International Conference on Research in Air Transportation, Berkeley, CA, May 2012. (Contribution: 80%) http://www.icrat.org//icrat/2012/Author/LuHao547/FINAL-431-cfp-Hao.pdf
- + 53. **Kim**, **A.** and M. Hansen, "The Effects of User Competition in Air Traffic Management Initiatives," 5th International Conference on Research in Air Transportation, Berkeley,
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

CA, May 2012.

http://www.icrat.org//icrat/2012/Author/AmyKim677/FINAL-442-cfp-Kim.pdf

- + 54. **Hao, L.** and M. Hansen, "Flight Time Predictability: Concepts, Metrics, and Impact on Scheduled Block Time," TRB Annual Meeting, January 2013, paper 13-4770. <a href="http://amonline.trb.org/2013-1.264263/t-13-039-1.294020/608-1.294048/13-4770-1.294052?qr=1">http://amonline.trb.org/2013-1.264263/t-13-039-1.294020/608-1.294048/13-4770-1.294052?qr=1</a>
- + 55. **Liu, Y.** and M. Hansen, "Ground Delay Program Decision-making using Multiple Criteria: A Single Airport Case," Tenth USA/Europe Air Traffic Management Research and Development Seminar (ATM2013), Chicago, IL, June 2013. <a href="http://www.atmseminar.org/seminarContent/seminar10/papers/318-Liu\_0127130612-Final-Paper-4-8-13.pdf">http://www.atmseminar.org/seminarContent/seminar10/papers/318-Liu\_0127130612-Final-Paper-4-8-13.pdf</a>
- + 56. **Hao, L.** and M. Hansen, "How Airlines Set Scheduled Block Times," Tenth USA/Europe Air Traffic Management Research and Development Seminar (ATM2013), Chicago, IL, June 2013.

http://www.atmseminar.org/seminarContent/seminar10/presentations/326-Hao\_0127130656-PresentationPDF-6-10-13.pdf

- + 57. **Seelhorst, M.** and M. Hansen, "Impacts of Reporting Rules and Facility Consolidation on Recorded Operational Errors in TRACONs," Tenth USA/Europe Air Traffic Management Research and Development Seminar (ATM2013), Chicago, IL, June 2013. <a href="http://www.atmseminar.org/seminarContent/seminar10/papers/335-Seelhorst\_0127130659-Final-Paper-4-12-13.pdf">http://www.atmseminar.org/seminarContent/seminar10/papers/335-Seelhorst\_0127130659-Final-Paper-4-12-13.pdf</a>
- + 58. **Zou, B.**, M. Hansen and M. Elke, "Evaluating Air Carrier Fuel Efficiency and CO2 Emissions in the U.S. Airline Industry," Tenth USA/Europe Air Traffic Management Research and Development Seminar (ATM2013), Chicago, IL, June 2013. <a href="http://www.atmseminar.org/seminarContent/seminar10/papers/333-Zou\_0127130659-Final-Paper-4-5-13.pdf">http://www.atmseminar.org/seminarContent/seminar10/papers/333-Zou\_0127130659-Final-Paper-4-5-13.pdf</a>
- + 59. **Seelhorst, M.** and M. Hansen, "Temporal Analysis of Operational Errors at Air Traffic Control Facilities," 13th World Conference on Transportation Research, Rio de Janeiro, Brazil, July 2013. https://drive.google.com/file/d/0B1kZy323Hs8oUG8tSlhIQ29aMmM/edit?usp=sharing
- + 60. **Liu, Y.** and M. Hansen, "Ground Delay Program Decision-making using Multiple Criteria: A Single Airport Case," 13th World Conference on Transportation Research, Rio de Janeiro, Brazil, July 2013. https://drive.google.com/file/d/0B1kZy323Hs8oVGV0cnJyN1RmbzA/edit?usp=sharing

<sup>+</sup> Published since promotion to Professor

<sup>\*</sup> Published since last review

<sup>^</sup> Not available for viewing

+ 61. Liu, Y. and M. Hansen, "Predictability in Airport Surface Operation Management," 2013 Aviation Technology, Integration, and Operations Conference, Los Angeles, CA, August 2013, AIAA 2013-4399. http://www.aviationsystemsdivision.arc.nasa.gov/publications/2013/AIAA-2013-

4399.pdf

+ 62. Hao, L., M. Hansen, M. Seelhorst and M. Smirti, "Impact of Operational Flight Predictability on Airline Fuel Cost," TRB Annual Meeting, January 2014, paper 14-5505 B. https://drive.google.com/file/d/0B1kZy323Hs8oT1diRzRVOTk1SEk/edit?usp=sharing

+ 63. Xiong, J. and M. Hansen, "Airlines' Flight Cancellation and Delay Trade-off Analysis Through Slot Credit Substitution Process," TRB Annual Meeting, January 2014, paper 14-2279 A. https://drive.google.com/file/d/0B1kZy323Hs8obFBLUmxvS05VMEU/edit?usp=sharing

+ 64. **Hao, L.** and M. Hansen, "The Impact of Block Time Reliability on Scheduled Block Time Setting," Sixth International Conference on Research in Air Transportation, Istanbul, Turkey, May 2014. http://www.icrat.org/icrat/Author/LuHao547/645-cfp-Hao.pdf?d

- + 65. Liu, Y., M. Hansen, A. Pozdnukhov and M. Ball, "Assessing Terminal Weather Forecast Similarity for Strategic Air Traffic Management," Sixth International Conference on Research in Air Transportation, Istanbul, Turkey, May 2014. http://www.icrat.org/icrat/Author/yiliu978/650-cfp-Liu.pdf?d
- \* 66. Yin, M., Y. Liu and M. Hansen, "Evaluating Impact of Flight Delay on Cargo and Overnight Package Delivery Firms," Paper 15-4497, Transportation Research Board 95th Annual Meeting (TRB2015), Washington, D.C, January 2015. https://trid.trb.org/view.aspx?id=1338658
- \* 67. Hao, L., L. Kang, M. Hansen and M. Ryerson, "Fuel Burn Impacts of Taxi-out Delay and their Implications for Gate-hold Benefits," 11th USA/Europe Air Traffic Management Research and Development Seminar (ATM2015, June 2015, Lisbon, Portugal, pp. 1-9. (Contribution: 75%) http://www.atmseminarus.org/seminarContent/seminar11/papers/532-Hao 0127150551-Final-Paper-5-14-15.pdf
- \* 68. **Kang, L.** and M. Hansen, "Predictability Evaluation Based on Gate-In Fuel Prediction and Cost-to-Carry Estimation," Paper 16-6177, Transportation Research Board 95th Annual Meeting (TRB2016), January 2016, Washington, D.C.. https://trid.trb.org/view.aspx?id=1394310
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- \* 69. Liu, Y., M. Yin and M. Hansen, "Estimating Costs of Flight Delay to Air Cargo Carriers," 7th International Conference on Research in Air Transportation (ICRAT2016), June 2016, Best Paper in Economics and Politics Track, Philadelphia, PA, pp. 1-8. http://www.icrat.org/icrat/seminarContent/2016/papers/67/ICRAT 2016 paper 67.pdf
- \* 70. Yin, M., M. Hansen and Z.J. Shin, "Estimating the Impact of Flight Delay on Cargo Carriers' Ground Distribution Cost," 4th World Conference on Transportation Research (WCTR2016), July 2016, Shanghai, China.

(Contribution: 90%)

https://wctrs.conference-

services.net/reports/template/onetextabstract.xml?xsl=template/onetextabstract.xsl&confe renceID=3909&abstractID=858962

- \* 71. Gorripaty, S., A. Pozdnukhov, M. Hansen and Y. Liu, "Identifying Similar Days for Air Traffic Management," 14th World Conference on Transportation Research (WCTR2016), July 2016, Shanghai, China (Contribution: 90%)
- \* 72. Kang, L.K., M. Hansen, M. Ryerson and L. Hao, "Behavioral Analysis of Airline Scheduled Block Time Adjustment," 14th World Conference on Transportation Research (WCTR2016), July 2016, Shanghai, China.

(Contribution: 90%)

https://wctrs.conference-

services.net/reports/template/onetextabstract.xml?xsl=template/onetextabstract.xsl&confe renceID=3909&abstractID=857299

\* 73. Gorripaty, S., M. Hansen and A. Pozdnukhov, "Decision Support Framework to Assist Air Traffic Management," 35th Annual Digital Aviation Systems Conference, September 2016, Sacramento, CA, 2016, doi: 10.1109/DASC.2016.7777974. (Contribution: 70%)

https://drive.google.com/file/d/0B1kZv323Hs8oRlg1NWE0WXZvUE0/view?usp=sharin g

\* 74. Liu, Y., M. Hansen, D. Lowell, C. Chuang and M. Ball, "En Route Performance in the National Airspace System," Paper 17-06684, Transportation Research Board 96th Annual Meeting (TRB2017), Washington, D.C., January 2017. (Contribution: 80%)

https://trid.trb.org/view.aspx?id=1439676

- \* 75. Liu, Y., M. Hansen, D. Lovell, C. Chuang, M. Ball and J. Gulding, "Causal Analysis of En Route Flight Inefficiency – the US Experience," 12th USA/Europe Air Traffic Management Research and Development Seminar (ATM2017), June 2017, Seattle, Washington, pp. 1-9, doi:
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

http://www.atmseminarus.org/seminarContent/seminar12/papers/12th\_ATM\_RD\_Seminar\_paper\_130.pdf.
(Contribution: 80%)

- \* 76. **Kang, L.** and M. Hansen, "Quantile Regression Based Estimation of Statistical Contingency Fuel," 12th USA/Europe Air Traffic Management Research and Development Seminar (ATM2017), June 2017, Seattle, Washington, pp. 1-9. <a href="http://www.atmseminarus.org/seminarContent/seminar12/papers/12th\_ATM\_RD\_Seminar\_paper\_138.pdf">http://www.atmseminarus.org/seminarContent/seminar12/papers/12th\_ATM\_RD\_Seminar\_paper\_138.pdf</a>
- \* 77. Liu, Y., M. Hansen, D. Zhang, Y. Liu and A. Pozdnukhov, "Modeling Ground Delay Program Incidence using Convective and Local Weather Information," 12th USA/Europe Air Traffic Management Research and Development Seminar (ATM2017), June 2017, Best Paper in Weather in ATM Track, Seattle, Washington, pp. 1-7. (Contribution: 80%)

  <a href="http://www.atmseminarus.org/seminarContent/seminar12/papers/12th\_ATM\_RD\_Seminar\_paper\_137.pdf">http://www.atmseminarus.org/seminarContent/seminar12/papers/12th\_ATM\_RD\_Seminar\_paper\_137.pdf</a>
- \* 78. Ball, M., P. Swaroop, C. Barnhart, C. Yan, M. Hansen, **L. Kang, Y. Liu** and V. Vaze, "Service Level Expectation Setting for Air Traffic Flow Management: Practical Challenges and Benefits Assessment," 12th USA/Europe Air Traffic Management Research and Development Seminar (ATM2017), June 2017, Seattle, Washington, pp. 1-9. (Contribution:50%)

https://drive.google.com/file/d/0B1kZy323Hs8oSjd3ZVp5eWtVWU0/view?usp=sharing

### **II. Non-Refereed Publications**

## A. Technical Reports

- 1. Hansen, M. National Ambient Noise Survey, Final Report, Environmental Protection Agency Report #550/1-82-410, 1982.
- 2. Hansen, M., R. Cervero, T. Watkins and J. Markowitz, Evidence on Time-of-Day Transit Pricing in the United States, Transportation Research Board 64th Annual Meeting, May 1984.
- 3. Hansen, M. Airline Deregulation and the Redistribution of Air Service: Some Preliminary Evidence, Working Paper UCB-ITS-WP-85-1, pp. 14, April 1985.
- 4. Hansen, M. and A. Kanafani, Hubbing and Airline Costs, Research Report UCB-ITS-RR-85-12, August 1985, pp. 29.
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- 5. Hansen, M. and A. Kanafani, International Airline Hubbing in Competitive Environment, Research Report UCB-ITS-RR-87-2, June 1987, pp. 24.
- 6. Hansen, M. A Model of Airline Hub Competition, Institute of Transportation Studies Dissertation Series 88-2, 1988.
- 7. Hansen, M. and A. Kanafani, Hubbing and Rehubbing at JFK International Airport: The ALIGATER Model, Institute of Transportation Studies Research Report 89-19, 1989, 107 pp.
- 8. Gillen, D., Hansen, M. and Ramos, R. Free Trade in Airline Services: Assessing the Proposals to Liberalize the Canada U.S. Air Transport Bilateral, UCB-ITS Research Report 90-4, 1990, 31 pp.
- 9. **Gosling, G.** and M. Hansen, Practicability of Screening International Checked Baggage for U.S. Airlines, Institute of Transportation Studies Research Report 90-14, 1990, 137 pp.
- 10. Hansen, M. and J. Sutter, The Shake with Freight: The Impact of the Loma Prieta Earthquake on Bay Area Truckers, University of California Transportation Center, Studies on the Loma Prieta Earthquake No. 1, November 1990, 49 pp.
- 11. Hansen, M. (member of Study Team) and others (from Chinese-American Technology Corporation), Development of an Air Transportation Hub in the Taiwan Area, prepared for Institute of Transportation, Ministry of Communications, Republic of China, 1991.
- 12. Hansen, M. and S. Weinstein, East Bay Ferry Service and the Loma Prieta Earthquake, University of California Transportation Center, Studies of the Loma Prieta Earthquake No. 5, January 1991.
- 13. Hansen, M., D. Gillen, A. Dobbins, Y. Huang and P. Puvathingal, The Air Quality Impacts of Urban Highway Capacity Expansion: Traffic Generation and Land Use Change, Institute of Transportation Studies Research Report UCB-ITS-RR-93-5, 1993.
- 14. Maillebiau, E. and M. Hansen, Demand and Consumer Welfare Impacts of International Airline Liberalization: The Case of the North Atlantic, Report No. UCB-ITS-RR-93-9, 1993, 28 pp.
- 15. Hansen, M. and Q. Du, Modeling Multiple Airport Systems: A Positive Feedback Approach, UCB-ITS Research Report 93-12, 1993, 61 pp.
- 16. Kiesling, M. and M. Hansen, Integrated Air Freight Cost Structure The Case of Federal Express, UCB-ITS Research Report 93-15, 1993, 20 pp.
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- 17. Youssef, W. and M. Hansen, The Consequences of Strategic Alliances Between International Airlines: The Case of Swissair and SAS, 1993, Report No. UCB-ITS-RR-93-16, 1993, 20 pp. + 3 figures and 11 tables.
- 18. Rhoades, K., S. Mehndiratta and M. Hansen, Airlines and Airport Ground Access: Current Arrangements and Future Opportunities, ICB-ITS Research Report 94-1, 1994.
- 19. Hansen, M., M. Qureshi and D. Rydzewski, Improving Transit Performance with Advanced Public Transportation Technologies, California PATH Research Report UCB-ITS-PRR-94-18, 1994, 121 pp.
- 20. Hansen, M., T. Chira-Chavala, B. Coifman, D. Empey, E. Lechner and C. Porter, Light Rail System Safety Improvements Using ITS Technologies, PATH Technical Report 97-39, 1994.

(Contribution: 70%)

- 21. Hansen, M., The California Aviation System: Current Status and Recent Trends, Institute of Transportation Studies, University of California at Berkeley, NEXTOR Research Report RR-98-8, UCB-ITS-RR-98-12, 1998.
- 22. Hansen, M. and S. Weinstein, Empirical Analysis of Airport Capacity Enhancement Impacts: A Case Study of DFW Airport, NEXTOR Research Report UCB-ITS-RR-1998-17, July 1998.
- 23. Hansen, M. and W. Wei, Multivariate Analysis of the Impacts of NAS Investments: A Case Study of a Major Capacity Expansion at Dallas-Fort Worth Airport, Institute of Transportation Studies, University of California at Berkeley, NEXTOR Research Report RR-98-18, UCB-ITS-RR-98-11, 1999.
- 24. Hansen, M. and **T. Bolic**, Delay and Flight Time Normalization Procedures for Major Airports: LAX Case Study, NEXTOR Research Report UCB-ITS-RR-2001-5, 2001.
- 25. Hansen, M., **G. Gosling**, J. Margulici and **W. Wei,** Influence of Capacity Constraints on Airline Fleet Mix, NEXTOR Research Report UCB-ITS-RR-2001-6, 2001. <u>Ref-journal no. 23 was derived from this publication</u>. <u>Ref-journal no. 24 was derived from this publication</u>. [Published as I.A.20 and I.A.24]
- 26. **Bolic, T.** and M. Hansen, Assessing URET Benefits for Airspace Users: A Quasi-experimental Approach, NEXTOR Research Report UCB-ITS-RR-2002-3, 2002.
- 27. Hansen, M., **G. Gosling**, T. Kettunen and E. Wilkins, The California Aviation System: Current Status and Recent Trends, Research Report UCB-ITS-RR-2002-8, June 2002, pp. 1-135.
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- 28. Hansen, M. and **T. Bolic**, Assessing URET Benefits for Airspace Users: A Quasi-experimental Approach, NEXTOR Research Report UCB-ITS-RR-2002-3, January 2002, pp.1-53.
- 29. Hansen, M., C. McAndrews and E. Berkeley, History of Aviation Safety Oversight in the United States, NEXTOR Research Report, NR-2005-001, 2005, pp. 1-64.
- 30. Hansen, M., Y. Zhang, and G. Gupta, Statistical Analysis for Air Traffic Safety: Operational Errors, Aircraft Separation, and Communication in the National Airspace System, NEXTOR Research Report NR-2005-03, 2005, 68 pp.
- + 31. Hansen, M., C. McAndrews, E. Berkeley, J. Gribko, D. Berkey and S. Hasan, Understanding and Evaluating the Federal Aviation Administrative Safety Oversight System, NEXTOR Research Report, 2006, NR-2006-1, 105 pp. (Contribution: 75%)
- + 32. **Smirti, M.** and M. Hansen, Achieving a Higher Capacity National Airspace System: An Analysis of the Virtual Airspace Modeling and Simulation Project, Report to NASA, August 2007, R.
- + 33. Coogan, M.A., M. Hansen, **M.S. Ryerson**, L. Kiernan, J. Last, R. Marchi and R. Yatzeck, Innovative Approaches to Addressing Aviation Capacity Issues in Coastal Mega-regions, Airport Cooperative Research Program (ACRP) Report 31, 2010. (Contribution: 25%)
- + 34. Barnett, A., **M. Ball**, G. Donohue, M. Hansen, A. Odoni and A. Trani, Los Angeles International Airport North Airfield Safety Study, Final Report, May 2010. (Contribution: 25%)
- + 35. Brownstone, D., M. Hansen and S. Madanat, Review of "Bay Area/California High-Speed RailRidership and Revenue Forecasting Study", Institute of Transportation Studies UC Berkeley, Research Report, June 2010, UCB-ITS-RR-2010-1. (Contribution: 33%)
- + 36. Hansen, M., M. Ball, Y. Liu, E. Kwan and B. Zou, Different Recipes: A Comparison US and European Airline Schedules, NEXTOR Final Report, September 2010.
- + 37. Ball, M., C. Barnhart, M. Dresner, M. Hansen, K. Neels, A. Odoni, E. Peterson, L. Sherry, A. Trani and **B. Zou**, Total Delay Impact Study: A Comprehensive Assessment of the Costs and Impacts of Flight Delay in the United States, NEXTOR Revised Final Report, November 2010. (Contribution: 40%)

<sup>+</sup> Published since promotion to Professor

<sup>\*</sup> Published since last review

<sup>^</sup> Not available for viewing

- + 38. **Seelhorst, M.** and M. Hansen, Impact of LoSS System on NAS Risk Factors, NEXTOR Report, December 2011.

  <a href="https://drive.google.com/a/berkeley.edu/file/d/0B1kZy323Hs8oVGF3YnBNN2J6NmM/edit">https://drive.google.com/a/berkeley.edu/file/d/0B1kZy323Hs8oVGF3YnBNN2J6NmM/edit</a>
- + 39. **Zou, B., M. Elke** and M. Hansen, Evaluating Air Carrier Fuel Efficiency and CO2 Emissions in the U.S. Airline Industry, NEXTOR, November 2012. https://drive.google.com/file/d/0B1kZy323Hs8oM1EtZWFfeU5UNzQ/edit?usp=sharing
- + 40. LeighFisher, Landrum & Brown, CDM Smith, George Mason University, University of California, Berkeley, Evaluating Airfield Capacity, ACRP Report 79, December 2012. http://onlinepubs.trb.org/onlinepubs/acrp/acrp\_rpt\_079.pdf
- + 41. **Hao, L.**, M. Hansen, D. Lovell, K. Vlachou and M. Ball, Flight Predictability: Concepts, Metrics, and Impacts, NEXTOR, February 2014. https://drive.google.com/a/berkeley.edu/file/d/0B1kZy323Hs8oYlFyNEUzY19vdTA/edit
- + 42. Trani, A., J. Hansman, D. McConnachie, C. Wollersheim, M. Elke, M. Hansen, N. Chan, M. Crépin, T. Li and E. Peterson, The Impact of Oil Prices on the Air Transportation Industry, NEXTOR, March 2014.

  <a href="https://www.isr.umd.edu/NEXTOR/pubs/NEXTOR-II-Oil-Impact-3-2014.pdf">https://www.isr.umd.edu/NEXTOR/pubs/NEXTOR-II-Oil-Impact-3-2014.pdf</a>
- + 43. **Seelhorst, M.** and M. Hansen, Flight Cancellation Behavior and Aviation System Performance, NEXTOR, March 2014. https://drive.google.com/file/d/0B1kZy323Hs8oVC1ZZndoN1Awb1E/edit?usp=sharing
- \* 44. Ball, Michael, Cynthia Barnhart, Mark Hansen, **Lei Kang, Yi Liu,** Prem Swaroop, Vikrant Vaze, Chiwei Yan "Distributed Mechanisms for Determining NAS-Wide Service Level Expectations: Final Report," NEXTOR, 2014 <a href="https://drive.google.com/open?id=0B1kZy323Hs8oUUlqTDZjQ0RVSk0">https://drive.google.com/open?id=0B1kZy323Hs8oUUlqTDZjQ0RVSk0</a>
- \* 45. Hansen, M. (Principle Investigator), Rail and the California Economy: A Summary Report of California's Rail System and its Economic Impact on the State, Institute of Transportation Studies, UC Berkeley, 2017, pp. 1-32.

  <a href="https://drive.google.com/file/d/0B1kZy323Hs8oUWFSUW1WQ2NuQkE/view?usp=sharing">https://drive.google.com/file/d/0B1kZy323Hs8oUWFSUW1WQ2NuQkE/view?usp=sharing</a>

## **B. Non-Refereed Conference Proceedings**

- 1. Hansen, M. "U.S. Intercity Passenger Transportation Policy: 1806-1990," in David Gillen, Canadian Transportation Policy, John Deutsch Institute for the Study of Economic Policy, 1990, pp. 20-35.
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

- 2. Hansen, M. "A Positive Feedback Model of Multiple Airport Systems," UTSG Annual Conference, Leeds, U.K., January 5-7, 1994, pp. 1-26.
- 3. Hansen, M. "The Traffic Inducement Effect: Its Meaning and Measurement," Transportation Research Board, 76th Annual Meeting, January 1997.
- 4. Hansen, M. "Modeling Airline Competition In A Hub-And-Spoke Network, Air Hub Development Seminar," Challenges and Strategies of a Modern World, Taipei, Taiwan, August 1996.
- + 5. Ball, M. O., L. M. Ausubel, F. Berardino, P. Cramton, G. Donohue, M. Hansen and K. Hoffman, "Market-based Alternatives for Managing Congestion at New York's LaGuardia Airport," Proceedings of AirNeth Annual Conference, April 2007. <u>Derived from ref-journal no. 33.</u>
  (Contribution: 20%)
- + 6. Hansen, M. and **J. Xiong**, "Measuring and Modeling National Airspace System Level of Service," Aachen Aviation Convention, Aachen Germany, June 2007, pp.53-61. <u>Refproceeding no. 27 was derived from this publication.</u>
- + 7. **Smirti, M.** and M. Hansen, "Achieving a Higher Capacity National Airspace System: An Analysis of the Virtual Airspace Modeling and Simulation Project," AIAA Guidance Navigation and Control Conference, August 2007.
- C. Articles in Nonarchival Magazines or Journals
- D. Book Reviews
- III. Books or Chapters in Books
  - + 1. **Liu, B.** and M. Hansen, <u>Managing Uncertainty in the Single Airport Ground Holding Problem</u>, VDM Verlag, 2008. <u>Derived from ref-journal no. 42</u>. <u>Derived from ref-journal no. 45</u>. Derived from ref-proceeding no. 25.
  - + 2. Clever, R. and M. Hansen, <u>The Competitive Advantage of High Speed Rail: Airport and Station Accessibility as a Determinant of Mode Choice, VDM Verlag, 2008.</u>
  - + 3. **Zou, B.** and M. Hansen, "Airport Operational Performance and Its Impact on Airline Cost," in Zografos, K., G. Andreatta, and A. Odoni, <u>Modelling and Managing Airport Performance</u>, Wiley, 2013, pp. 121-144. <a href="https://drive.google.com/a/berkeley.edu/file/d/0B1kZy323Hs8oYUV4NXBFU1hWYkk/edit">https://drive.google.com/a/berkeley.edu/file/d/0B1kZy323Hs8oYUV4NXBFU1hWYkk/edit</a>
  - + 4. Hansen, M., **M. Ryerson** and R. Marchi, "New Methodologies for Airport Environmental Impact Analysis", in Zografos, K., G. Andreatta, and A. Odoni, Modelling
- + Published since promotion to Professor
- \* Published since last review
- ^ Not available for viewing

and Managing Airport Performance, Wiley, 2013, pp. 145-175.

(Contribution: 70%)

https://drive.google.com/file/d/0B1kZy323Hs8odTVvUWh5LV9tS00/edit?usp=sharing

+ 5. Ball, M., M. Hansen, P. Swaroop and **B. Zou**, "Design and Justification for Market-Based Approached to Airport Congestion Management," in Zografos, K., G. Andreatta, and A. Odoni, <u>Modelling and Managing Airport Performance</u>, Wiley, 2013, pp. 253-274. (Contribution: 50%) <a href="https://drive.google.com/file/d/0B1kZy323Hs8oSzlCck1tdF9fQ0E/edit?usp=sharing">https://drive.google.com/file/d/0B1kZy323Hs8oSzlCck1tdF9fQ0E/edit?usp=sharing</a>

\* 6. Zou, B., I. Kwan, M. Hansen, D. Rutherford, N. Kaffe and A. Fuel, <u>Efficiency:</u>
<u>Assessment Methodologies and Applications in the US Domestic Airline Industry, in Bitzan, John, James Peoples, and Wesley Wilson, Airline Efficiency, Emerald, 2016, pp. 317-352.</u>

(Contribution: 25%)

http://www.emeraldinsight.com/doi/book/10.1108/S2212-160920165

### IV. Other

<sup>+</sup> Published since promotion to Professor

<sup>\*</sup> Published since last review

<sup>^</sup> Not available for viewing