

***RAILROAD APPLICATIONS OF OPERATIONS RESEARCH***

*SPONSORED BY RASIG (RAILROAD APPLICATIONS SPECIAL INTEREST GROUP)  
INSTITUTE FOR OPERATIONS RESEARCH AND MANAGEMENT SCIENCE (INFORMS)  
SAN ANTONIO, TX, NOVEMBER 5-6, 2000*

The Rail Applications Special Interest Group (RASIG) is a non-profit professional society under the Institute for Operations Research and Management Sciences (INFORMS). It provides a forum to bring together practitioners, consultants, and academics interested in applying operations research and management science (OR and MS) techniques to the railroad industry. Activities include roundtables, paper sessions at national meetings of INFORMS, workshops, and focus groups. Roundtables provide attendees with a unique opportunity to explore in depth topics ranging from ebusiness to problems faced by OR practitioners to network modeling along with a panel of experts. Paper sessions feature the latest in OR and MS research pertaining to the rail industry.

RASIG meetings are held in conjunction with the annual INFORMS Conferences. The RASIG program includes a roundtable discussion focusing on a current topic of concern to the railroad industry, presentations of papers, and a business meeting.

The Fall 2000 INFORMS National Meeting will be held in San Antonio Marriott Rivercenter, San Antonio, TX, November 5-6, 2000. For further information, please visit <http://www.informs.org/Section/rasig/sanantonio.html> or contact Pooja Dewan, Burlington Northern Santa Fe, the cluster chair, at 817-352-2257, or by e-mail at [Pooja.Dewan@bnsf.com](mailto:Pooja.Dewan@bnsf.com). This year RASIG is sponsoring two Roundtable sessions (November 5) and two paper sessions (November 6). Please find attached detailed agenda for these sessions.

In addition to the railroad session, the INFORMS conference offers 40 tracks of professional presentations, opportunities to network with 1400 attendees, vendor exhibits, social events, and a spouse program. Conference registration information, hotel reservation details, and the conference agenda are available at <http://www.informs.org/Conf/SanAntonio2000/>, or by calling INFORMS at 1-800-4INFORMS.

***To avail of discounted rates under INFORMS  
Conference Registration Deadline: October 2  
Hotel Registration Deadline: October 10***

**AGENDA RASIG SPONSORED SESSIONS**  
**INFORMS ANNUAL CONFERENCE**  
**SAN ANTONIO, TEXAS**  
**Nov. 5-6**

**SC28, SUNDAY, NOVEMBER 5, 1:15 - 2:45 PM- HOW DO WE MEASURE?  
SUCSESSES & FAILURES OF OPERATIONS RESEARCH IN THE RAIL  
INDUSTRY - PART I**

**Roundtable Chair**-Ingrid Schultze, Reebie Associates, [ischultze@reebie.com](mailto:ischultze@reebie.com)

**How Do We Measure-An Industry Overview** -Carl Martland, MIT

**A. Network and Strategic Planning Applications**-Carl Martland, Moderator

- |    |   |   |
|----|---|---|
| a. | Bengt Mutén Reebie Associates           | Successes/failures of network planning & diversion models.  |
| b. | Jason Kuehn, MultiModal Applied Systems | Contributions of Operations Research to industry-wide restructuring efforts such as M&A, mixing centers etc.; where OR has worked, where it "needs work". |
| c. | Roger Baugher, Norfolk Southern         | How technology advances are shaping the application of OR in the rail industry  |

**B. Corridor-level Planning Applications: Overview of How we Measure** -

Chip Kraft, Amtrak, Moderator

- |    |                                 |  |
|----|---------------------------------|--|
| a. | Howard Rosen, ALK Associates    | Successes/failures of corridor planning models from a systems and consulting perspective.  |
| b. | Roger Baugher, Norfolk Southern | Contributions of OR to corridor planning efforts; where OR has worked, where it needs work |
| c. | Bill Matheson, GE Harris        | * invited *  |

**SD28, SUNDAY, NOVEMBER 5, 3:00 - 4:30 PM- HOW DO WE MEASURE?  
SUCSESSES & FAILURES OF OPERATIONS RESEARCH IN THE RAIL  
INDUSTRY - PART II**

**Roundtable Chair**-Ingrid Schultze, Reebie Associates, [ischultze@reebie.com](mailto:ischultze@reebie.com)

**Continuing Remarks-How Do We Measure?** Carl Martland, MIT

**C. Railroad Costing** - David Helmer (formerly NS), Moderator

- |    |   |   |
|----|---|---|
| a. | Joe Bryan, Reebie Associates  | Consultant perspective                                      |
| b. | Nick Murray, Director Costing and Profit Analysis, Burlington Northern Santa Fe | *Invited *<br>Merging cost systems for two merged railroads |
| c. | Martha Lawrence, Principal,   | International railroad perspective                          |

- D. Terminal Capacity and Planning** - Carl Martland, MIT, Moderator
- a. Carl Martland, MIT Systems and modeling perspective
  - b. Richard Gray, Assist. Director \* Invited \*  
CTCO, Union Pacific
  - c. Harold Krueger, CN \* Invited \*

**MA28, MONDAY, NOVEMBER 6, 8:15-9:45 AM: NETWORK FLOWS: FREIGHT APPLICATIONS (JOINT SESSION NETWORK FLOWS CLUSTER & RASIG)**

**Session Chair:** Dharma Acharya, CSX Railway, [Dharma.Acharya@CSX.com](mailto:Dharma.Acharya@CSX.com)

**Paper 1:** A Network Model for Crew Scheduling within Railroads  
Pooja Dewan, BNSF Railway

**Paper 2:** Application of Network Flow Models in Traffic Data Estimation and Passenger Rail Revenue Management  
Marc Meketon, MultiModal Applied Systems Inc.

**Paper 3:** Shan's Block Assignment Model  
Yen S. Shan, Perseco

**Paper 4:** Applying Inverse Optimization Technique to Railway Traffic Flow Network  
Natasha Lukiantseva, CSX Transportation  
Ravindra K. Ahuja, University of Florida  
Caroline Prawira, Case Western Reserve University

**MC28, MONDAY, NOVEMBER 6, 1:15- 2:45 PM: RAILROAD EMPTY EQUIPMENT DISTRIBUTION SYSTEMS**

**Session Chair:** Kevin Crook, BNSF Railway, [Kevin.Crook@BNSF.com](mailto:Kevin.Crook@BNSF.com)

**Paper 1:** Car Distribution Optimization at CN  
Anshu Pathak, Canadian National Railways

**Paper 2:** NS Empty Equipment Distribution  
Roger Baugher, Norfolk Southern Railroad

**Paper 3:** EDO at BNSF Railway  
Kevin Crook, Burlington Northern Santa Fe Railway

**Paper 4:** CSX's Dynamic Railcar Planning System  
David Bell, CSXT