

About the sponsors

NEXTOR, The National Center of Excellence in Aviation Operations Research, is an FAA-sponsored research consortium, consisting of four core universities, 11 affiliated universities and over 20 private and public sector industry partners. NEXTOR's core universities include: the Massachusetts Institute of Technology, the University of Maryland, the University of California at Berkeley, and Virginia Polytechnic Institute. The research agenda emphasizes advancing the state of the art in modeling advanced airport and air traffic management systems, and developing better databases, metrics and techniques for monitoring and assessing the national airspace system's (NAS) performance. NEXTOR works with the FAA and its industry partners to understand how NAS service providers and users will respond to alternative system architectures, operational concepts, investment strategies, and finance mechanisms.

The Global Airline Industry Center at MIT brings together a multidisciplinary team of faculty, staff and graduate students drawn from the Schools of Engineering, Management and Humanities and Social Sciences to study the global airline industry. The goal of this program is to develop a body of knowledge for understanding development, growth and competitive advantage in this diverse, dynamic and often perplexing industry.

Research projects address issues related to the economics, management and operations of international carriers, large domestic carriers and small regional or local carriers. The scope also includes interactions with airline companies, aircraft and engine manufacturers, airports, air traffic control and regula-

tory or supervisory agencies such as the FAA or the International Civil Aviation Organization (ICAO). This effort is funded under the umbrella of the Alfred P. Sloan Foundation's Industry Studies Program.

The Robert H Smith School of Business at the University of Maryland develops effective leaders for a business world fueled by technology, globalization, and entrepreneurial innovation. The Smith School offers undergraduate and graduate programs (MBA, MS, and PhD) that integrate an in-depth education in core business functions with cross-functional concentrations, including electronic commerce, telecommunications, financial engineering, and supply chain management.

Smith School faculty members combine excellence in teaching with exceptional scholarship. As editors of some of the leading academic journals, prolific researchers, and consultants to global business organizations, the faculty have been recognized for contributions to best business practices.

In its new Netcentricity Laboratory, which includes the Supply Chain Management Center, the Smith School is helping organizations achieve increased productivity and efficiency through digital networks. Also providing a wide range of services are the school's Dingman Center for Entrepreneurship, Center for Global Business, and Center for Executive Education.

Registration information

Register online at
www.isr.umd.edu/airworkshop/

Attendance at this workshop is by invitation only. The deadline for registration is Friday, March 2.

Fee: There is no registration fee for this workshop.

Where: The workshop is being held at the University of Maryland's Inn and Conference Center, 3501 University Blvd. East, Adelphi, MD 20783. Directions are available online at www.conferencecenters.com/wasum/

Travel and accommodations

You will need to make and pay for your own travel and accommodation arrangements.

Rooms are available on site at the Inn and Conference Center. Call 301-985-7303 for reservations. A list of alternate accommodation options in the College Park area is available at www.isr.umd.edu/ISR/about/Hotels.html.

Parking is available on site.

Program questions? Email Professor Michael Ball, University of Maryland, at mball@rhsmith.umd.edu, or Professor Amedeo Odoni, Massachusetts Institute of Technology, arodoni@mit.edu.

Logistics questions? E-mail Karen Deal at karend@isr.umd.edu.

This workshop is being administered through the Institute for Systems Research at the University of Maryland, www.isr.umd.edu

Workshop on Airline and National Strategies for Dealing with Airport and Airspace Congestion

March 15–16, 2001

The Inn and Conference Center
University of Maryland
College Park, MD

Sponsored by:

NEXTOR, The National Center of Excellence for Aviation Operations Research at the University of Maryland

The Global Airline Industry Center at the Massachusetts Institute of Technology (sponsored by the Sloan Foundation)

The Robert H. Smith School of Business at the University of Maryland

About the workshop

Airport and airspace congestion have become national problems that seriously threaten the future growth, public standing and economic welfare of air transportation. Airlines have adopted a number of measures in response, ranging from “padding” scheduled flight times to the development of dynamic strategies for the re-deployment of equipment and personnel in instances when delays become unacceptably large.

The conference brings together leading researchers from academia, government and industry who will present their findings on:

- The true extent of the airport and airspace congestion problem;
- The underlying causes;
- Prospects for airport and airspace capacity expansion;
- Potential advantages and disadvantages of alternative demand management approaches, including congestion pricing;
- Airline responses to delays and congestion to date;
- Implications for long-term airline strategies;
- Potential new national policies for dealing with the issue.

Organizers

Michael Ball
University of Maryland
(mball@rhsmith.umd.edu)

Amedeo Odoni
Massachusetts Institute of Technology
(arodoni@mit.edu)

Program

Thursday, March 15

8:30–9:00 a.m.

Welcome

Michael Ball
University of Maryland

9:00–10:45 a.m.

The Extent of the Problem and Its Underlying Causes

- *Airport and Airspace Capacity Constraints and the Prospects for Capacity Expansion*
John Hansman
Massachusetts Institute of Technology
- *An Evaluation of Overall U.S. and European Airspace Capacity*
George Donohue
George Mason University
- *National Trends in Airport Delays and Flight Cancellations*
Cynthia Barnhart and Stephane Bratu
Massachusetts Institute of Technology

10:45–11:00 a.m.

Break

11:00 a.m.–12:15 p.m.

Impact on Airline Profitability and Service to the Public

- *The Economic Impact of Airport Congestion*
Martin Dresner and Robert Windle
University of Maryland
- *The Impact of Airport Delays on Airline Costs*
Peter Kostjuk
Logistics Management Institute

12:15–1:30 p.m.

Lunch

- *Is It Safe?*
Arnold Barnett
Massachusetts Institute of Technology

1:30–3:15 p.m.

ATC Operational Strategies

- *Strategic Planning in Traffic Flow Management*
Jack Kies
U.S. Federal Aviation Administration
- *Improving System Performance through Collaborative Decision Making*
Michael Ball
University of Maryland
- *A Case Study of Delays and Response Strategies at Newark Airport*
John-Paul Clarke and Anthony Evans
Massachusetts Institute of Technology

3:15–3:30 p.m.

Break

3:30–5:15 p.m.

Demand Management

- *Demand Management Alternatives for Reducing Airport Delays*
Amedeo Odoni and Terence Fan
Massachusetts Institute of Technology
- *Federal Issues Dealing with Demand Management*
Louise Maillert
U.S. Federal Aviation Administration
- *Federal Regulatory Issues Related to Airport Demand Management*
Scott Lewis
Palmer and Dodge

5:30–6:30 p.m.

Wine and Cheese Reception

Friday, March 16

8:30–9:00 a.m.

Keynote Address

Jane Garvey
Administrator
U.S. Federal Aviation Administration

9:00–10:45 a.m.

Industry and Competitive Strategies I

- *Short- to Medium-Term Airline Responses to Delays*
Peter McDonald
United Air Lines

- *Influence of Capacity Constraints on Airline Fleet Mix*
Mark Hansen and Geoffrey Gosling
University of California, Berkeley
- *The Changing Face of Aviation in View of Airport/Airspace Congestion*
Bill Wangerien
Delta Airlines

10:45–11:00 a.m.

Break

11:00 a.m.–12:15 p.m.

Industry and Competitive Strategies II

- *Matching Capacity and Demand at LaGuardia Airport*
William DeCota
Port Authority of New York and New Jersey
- *How to Have Your Cake and Eat It Too: Public Policies on Airport Congestion*
Glenn Hauenstein
Continental Airlines

12:15–1:15 p.m.

Lunch

1:15–3:00 p.m.

National and International Policy Alternatives

- *Future Capacity Developments*
Steve Brown
U.S. Federal Aviation Administration
- *Dealing with Airport and Airspace Congestion in Europe*
Xavier Fron
EUROCONTROL
- *A Market-Based Approach to ATC Modernization*
Russ Chew
American Airlines

3:00–3:15 p.m.

Closing Remarks

Amedeo Odoni
Massachusetts Institute of Technology