
MIT Airline Industry Consortium – Executive Education Course

“The Airline Industry: Developments and Research Findings”

Massachusetts Institute of Technology, Cambridge, MA

June 13-14, 2013

Intensive 2-day educational program on recent developments and findings of important research studies of the global airline industry. Overviews of recent airline performance and overviews of some basic concepts will be provided, but the focus of most lectures will be on details of research studies and in-depth discussion of critical economic, operational and policy issues facing global aviation.

MIT and Affiliated INSTRUCTORS

Dr. Peter Belobaba, Program Manager, MIT Global Airline Industry Program

Prof. Hamsa Balakrishnan, Department of Aeronautics and Astronautics, MIT

Prof. Amy Cohn, Dept. of Industrial and Operations Engineering, University of Michigan

Prof. R. John Hansman, Director, MIT International Center for Air Transportation

Mr. William Swelbar, Research Engineer, Manager of MIT's Airline Data Project

Dr. Vikrant Vaze, Research Affiliate, MIT

Mr. Michael Wittman, Research Assistant, MIT International Center for Air Transportation

INDUSTRY SPEAKERS

Dr. William Brunger, Vice President—Network (retired), Continental Airlines

Mr. Ricky Mack, Director, Market Research and Forecasting, Boeing Commercial Airplanes

TENTATIVE COURSE AGENDA

THURSDAY 13 JUNE

Recent Trends and Forces in Global Aviation (Hansman)

Summary of new developments in global aviation, focusing on economic cycles and fuel price volatility; implications for infrastructure capacity, operations, aircraft fleets, and safety

Impacts of Capacity Discipline on Airline Profitability (Belobaba)

Review of airline traffic and financial performance by world region; focus on “capacity discipline” strategies and their impacts; interactions between fleets, capacity, load factors and yields

Market Forces Shaping Small Community Air Services in the US (Swelbar)

Recent changes in US airline network strategies; impacts of capacity discipline on airports by size category; focus on service reductions at smaller airports; implications for fleets and policy issues

Topics in Delay Propagation and Airline Disruption Management (Cohn)

Causes of flight delays and disruptions; Scheduling for variability in flight operations; Analysis of delay propagation; Optimization approaches for managing operational uncertainty and delays

Longitudinal Analysis of Passenger Delays and the Tarmac Delay Rule (Vaze)

Trends in passenger delays and itinerary disruptions; Analysis by airport and airline type; Impacts of load factors and hub operations on delays; Flight cancellations due to 3-hour rule

Consumer Complaint Rates vs. Actual Airline Performance (Wittman)

Changes in US DOT consumer complaint rates over time; correlations between complaints and service quality metrics; differences in perceptions of service quality at LCCs and legacy carriers

Key Findings on Airplane Economic Life (Mack)

Definitions of "economic life" for commercial aircraft; Results of comprehensive study of over 31,000 airplanes and 60 years of data; Recent trends and implications for fleet requirements

EVENING ACTIVITY – GROUP DINNER AT MIT FACULTY CLUB

FRIDAY 14 JUNE

Developments in Airline Pricing and Revenue Management (Belobaba)

Trends in airline pricing and ancillary revenues; RM models for bundled "fare family" pricing; Incorporating ancillary revenue potential into RM; Challenges in alliance RM and distribution.

The Value of Frequent Flyer Programs to Airlines (Brunger)

Statistical analysis of short-term economics and incremental revenues for airlines; Increased willingness to pay by high-level FFP passengers; Implications for profitability of FFP bookings.

Measuring Changes in Airport Connectivity (Wittman)

Development of a new index to compare airport connectivity; Connectivity versus accessibility; Model formulation; Review of recent changes in connectivity with focus on smaller US airports.

Optimization of Air Traffic and Airport Operations (Balakrishnan)

Overview of recent research developments; Efficient, equitable and robust arrival/departure runway scheduling; Reduced emissions through airport operations planning.

Improving Operational Efficiency and Environmental Impacts (Hansman)

Review of environmental impacts of aviation; Developing options for fuel burn and environmental impact reduction; Opportunities for integration into future Air Traffic Management.

Network and Capacity Growth of Emerging Middle East Carriers (Belobaba)

Overview of emerging Middle East airlines; Comparisons of recent traffic and capacity growth; Network strategies and impacts by world region; Future fleet plans.

Outlook for International and Domestic Operations at Largest US Airports (Swelbar)

Trends in domestic and international flights, destinations and aircraft mix at Core 30 airports 2007-2012; Outlooks by airport and projected growth for commercial service through 2017.

REGISTRATION INFORMATION

“The Airline Industry: Developments and Research Findings”

MIT, June 13-14, 2013

AIRLINE INDUSTRY CONSORTIUM

The MIT Airline Industry Consortium consists of major industry stakeholders that support and participate in the research and educational efforts of the MIT Global Airline Industry Program. This Executive Education Course is designed for members of the Consortium – each member company may send 3 registrants at no additional charge. Registrants from non-member companies are welcome, and will be accommodated subject to space availability.

PROGRAM COST PER PERSON (US \$)

Airline Industry Consortium member companies – first 3 registrants	No charge
Additional registrants from member company	\$1250
Registrants from Non-member Companies	\$2500

Registration fees include all course lectures and materials, plus coffee breaks and snacks, as well as a group dinner on June 13. Hotel, meal, and travel costs are not included.

REGISTRATION FORM

DUE NO LATER THAN MAY 31, 2013

Please reserve a place for me in the Executive Education Course: The Airline Industry to be held at MIT on June 13-14, 2013.

NAME _____

TITLE _____

COMPANY _____

MAILING ADDRESS:

PHONE/FAX _____

E-MAIL _____

REGISTRATION FEE USD \$_____

Please submit a separate registration form or e-mail above details for each registrant.

HOTEL INFORMATION

The following Cambridge hotels are convenient to MIT. Please request the special “MIT Rates” shown below directly from the hotel. Lower airline or government employee rates might also be available. Because June is a peak period for visitors to the Boston area, ***you are encouraged to book hotel space as soon as possible.***

Marriott Hotel Cambridge Center	\$249/night	(617) 494-6600	(800) 228-9290
Residence Inn Cambridge Center	\$231/night	(617) 349-0700	(800) 331-3131
Courtyard Marriott (Cambridge)	\$179/night	(617) 492-7777	(866) 323-4149
Hyatt Regency Cambridge	\$229/night	(617) 492-1234	
Le Meridien Hotel Cambridge	\$249/night	(617) 577-0200	
Royal Sonesta Hotel Cambridge	\$223/night	(617) 515-3390	

Please return this page by fax to P. Belobaba at 617-253-0361 or reply with all details by e-mail to belobaba@mit.edu by May 31!
