050906_07

Exhibit A

QUALIFICATIONS

AND RESUMES

THE
CAMPBELL-HILL
AVIATION GROUP, INC.
Aviation and Economic Research Consultants

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THE
CAMPBELL-HILL
AVIATION GROUP, INC.
Aviation and Economic Research Consultants

PROFESSIONAL SERVICES AND QUALIFICATIONS

SERVING:

Airports and Airport Authorities
International and Domestic Passenger Airlines
Integrated Express Carriers
Industry Trade Associations
Aircraft Manufacturers
Travel Companies
Legal Profession
Financial Institutions
Regulatory Agencies
Government Planning and Policy Agencies

700 North Fairfax Street • Suite 300
Alexandria, Virginia 22314
Tel: 703-836-1283 • Fax: 703-836-5607
e-mail: chag@air-econ.com

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WHO WE ARE

The Campbell-Hill Aviation Group, Inc. (Campbell-Hill) is a privately-owned U.S. consulting firm providing a wide range of services to the aviation industry. Campbell-Hill's client base includes passenger airlines, all-cargo carriers, airports, industry associations, and city, state, and federal government agencies. Campbell-Hill is located in the Washington, D.C. area, which provides ready access to U.S. government agencies, law firms, leading transportation and public policy research centers.

The Campbell-Hill Aviation Group was formed by **Dr. Brian M. Campbell** in 1993, as the successor to the aviation practice of Leeper, Cambridge & Campbell, Inc. (LCC) of which Dr. Campbell was a co-founder and Chairman. Dr. Campbell has been engaged in aviation consulting continuously since 1982.

Dr. Campbell began his aviation consulting career in 1968 with Simat, Helliesen & Eichner, Inc. (SH&E) and is an expert in airline economics, planning and forecasting, and the measurement of the economic impacts of air services on local and regional economies. He was a co-founder of two start-up airlines and has consulted to many others. He also is an industry leader in the air cargo/air express sector and in the evaluation of the financial impacts of noise and emissions regulations on the owners and operators of commercial aircraft, as well as on national and regional economies. Dr. Campbell's broad background as an entrepreneur, airline executive, and respected advisor to the aviation industry is an invaluable resource for Campbell-Hill clients.

Mr. Dean B. Hill (President) brings 27 years of airline experience to the firm from Delta Air Lines, where he gained extensive operating expertise in all facets of airline planning, marketing, and analysis. Mr. Hill has particular skill in route and marketing strategy, hub development, acquisition evaluation, code-sharing and carrier alliances, and regulatory affairs. At his retirement from Delta, Mr. Hill was Director of International Route Development. Mr. Hill offers Campbell-Hill clients an important understanding of the aviation industry from an airline perspective.

Mr. Rex Edwards (Consulting Associate) brings more than 25 years of transportation research and consulting experience to Campbell-Hill projects. His strengths as an economist, statistician and transportation database expert benefit the firm's clients in both passenger and air cargo/express systems analysis and forecasting. Mr. Edwards manages the firm's aviation economic impact studies for airports and he has analyzed FAA flight operations and delay databases for a landmark study in 2001.

The firm has a highly qualified team including three other senior full-time experienced aviation economists.

Mr. Patrick M. Swift (Research Director) has a broad, hands-on background in the planning and operation of small and start-up airlines. Mr. Swift advises clients on a range of planning issues, including domestic and international slot procurement and management, CRS management, aircraft scheduling, and airline pricing. He is an expert in managing and analyzing large aviation and economic databases.

Mr. Kevin Schorr (Research Director) specializes in creating and delivering air service presentations for airport clients of all sizes. He also has experience with airport use and lease agreements, rates and charges methodologies, schedule analysis, and route planning. Before joining Campbell-Hill, Mr. Schorr spent 2½ years with PA Consulting Group, Inc. in Washington, DC and prior to that, he was Director – Domestic Strategies and Alliances for Trans World Airlines (TWA). His responsibilities at TWA included the implementation of the alliance with America West, international route planning, schedule planning, and other codeshare planning activities.

Mr. Todd Schroder (Research Director) has eight years of experience in aircraft marketing and fleet planning. He is an expert in market research, including fleet planning studies, regional airline industry forecasting, and strategic planning. Mr. Schroder's extensive technical abilities include database development and geographical, industrial, and demographic information systems.

Supporting the firm's research projects are three full-time economic analysts.

Azer Ibadov (Senior Research Analyst) Mr. Ibadov has a B.B.A in International Management from Pace University and an M.B.A. in International Finance from American University. Mr. Ibadov joined Campbell-Hill in 1999 and currently specializes in statistical and database analysis and research.

James Lundy (Research Analyst) Mr. Lundy has a B.B.A. in Finance from James Madison University. Joining the firm in 2003, Mr. Lundy specializes in statistical and database analysis and research.

The firm's computer systems employ state-of-the-art graphics software, communications packages, and modern database management and statistical packages that include traditional regression and other multivariate techniques. The firm has access to all U.S. Department of Transportation and Department of Commerce traffic and financial databases.

The Campbell-Hill Aviation Group maintains close working affiliations with a broad base of other aviation marketing, airport planning, and economic and financial service companies from which additional resources are readily available. In addition, Campbell-Hill has excellent working relationships with numerous regulatory attorneys, and transportation professors and researchers at several leading universities.

The firm is 100% employee owned and managed.

WHAT WE DO

The Campbell-Hill Aviation Group specializes in providing a wide range of consulting services to the aviation industry. Campbell-Hill's client base includes passenger airlines, integrated air express carriers, all-cargo carriers, airports, and financial institutions. Campbell-Hill's engagements are divided approximately equally between the private sector, and various levels of government and airport organizations.

A major portion of our engagements involves problem diagnosis, opportunity specification, forecasts and analyses of decision alternatives, strategic recommendations, and follow-up evaluations. Other significant aspects of our private sector practice include regulatory issues (e.g., international route development and regulatory cases, aircraft noise and emissions policy, and government aviation competition policy development), long-range planning (e.g., aircraft fleets), litigation support, and marketing strategy.

PRIMARY CONSULTING SERVICES

INTERNATIONAL AVIATION

Airline and Airport Advocacy and Representation
Carrier Alliances and Code-sharing Evaluation and Negotiation
Traffic Analysis and Forecasting • Environmental Policy Analysis
Financial and Economic Impact Studies
Government Regulatory Policy Analysis
Bilateral Representation and Strategy

AIR SERVICE DEVELOPMENT

Marketing Strategy • Service Opportunity Studies
Competitive Service Analysis • Marketing Programs for Airports
Air Service Plans and Presentations • Industry Monitoring Services
Traffic, Revenue, and Profit/Loss Forecasts
Multiple Airport Traffic Assignment Modeling

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PRIMARY CONSULTING SERVICES

ECONOMIC AND FINANCIAL ANALYSIS

Feasibility Studies • Corporate Valuation Studies • Preparation of Business Plan
Litigation Support • Economic, Financial, and Traffic Forecasting • Arbitration Opinions
Impact Analysis of Environmental Initiatives • Due Diligence Evaluations

STRATEGIC PLANNING

Merger and Acquisition Analysis • Analysis of Industry Issues
Alliance Strategy Simulation Modeling • Route Strategy and Traffic Flow Analysis
Public Policy Analysis and Advocacy Papers

AIR CARGO STUDIES

Commodity Flow Analysis • Hub Location Analysis • Mode-Split Modeling
All - Cargo Service Studies • Economic Impact Studies • Carrier Presentations

REGULATORY SERVICES

Route Case Preparation/Presentation • Strategy Development
Expert Testimony • Aircraft Noise Policy Evaluation
Merger Case Analysis and Support (DOT, DOJ, FTC, Congress)
Regulatory Accounting and Reporting

RESOURCE PLANNING

Schedule Evaluation • Fleet Planning • Financial Forecasting
Airline Alliance Evaluation • Restructuring Studies • Airline Merger Evaluation
Aircraft Evaluation

SURVEY RESEARCH

Travel and Tourism • Airlines and Forwarders
Business Firms • Cargo Shippers

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SELECTED CLIENTS

U.S. FEDERAL GOVERNMENT

Department of Transportation • Federal Aviation Administration

FOREIGN GOVERNMENTS

Government of Canada • Government of Taiwan

STATE AND LOCAL GOVERNMENTS

City of Calgary, Alberta • City of Edmonton, Alberta
City of Harlingen, Texas • City of Kansas City, Missouri
City of Memphis, Tennessee • City of San Jose, California
Commonwealth of Virginia • County of Milwaukee, Wisconsin
Province of Alberta • State of Connecticut • State of Hawaii
State of Maryland • State of New York • State of North Carolina
Province of Prince Edward Island

AUTHORITIES, REGIONAL COMMISSIONS, AND TASK FORCES

Austin - Bergstrom International Airport • BWI Airport
Berlin Brandenburg Flughafen • Bradley International Airport
Fresno Yosemite International Airport • General Mitchell International Airport
Greater Peoria Airport Authority • Lehigh - Valley International Airport
Metropolitan Washington Airport Authority • Munich Airport Authority
Pittsburgh International Airport • Port of Oakland • Port of Portland
Raleigh/Durham Airport Authority • Reno/Tahoe International Airport
Washington Airports Task Force • Washington Metropolitan Council of Governments

ASSOCIATIONS

Air Transport Association of America • Canadian Consumers' Association
Cargo Airline Association • Regional Airline Association

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SELECTED CLIENTS

MANUFACTURERS

Boeing Corporation • Lockheed Aircraft Company • McDonnell Douglas Corporation

AIRLINES

Airborne Express • American Airlines • Atlantic Coast Airlines • BAX Global
Canada 3000 • Canadian Airlines • Continental Airlines • Delta Air Lines
DHL • Emery/CF Air Freight • Evergreen International Aviation
Federal Express Corporation • Gemini Air Cargo • Legend Airlines
Midway Airlines • Northwest Airlines • PeopleExpress • Polar Air Cargo
Royal Aviation, Ltd. • Royal Jordanian Airlines • Scandinavian Airlines System
Southern Air Transport • Southwest Airlines • United Airlines
United Parcel Service • Viacão Aerea Sao Paulo (VASP)

ENGINEERS

Howard Needles Tammen & Bergendoff • Kimley Horn

LAW FIRMS

Bagileo, Silverberg & Goldman • Ball, Janik • Condon & Forsyth • Crowell & Moring
Davis Polk & Wardwell • Hewes, Gelband, Lambert & Dann, PC
Hogan & Hartson • Hopkins & Sutter • Kirkland & Ellis
McGuire, Woods, Battle & Boothe • Morgan, Lewis & Bockius
Nobbs, Woods & Clark • O'Melveny & Myers • Preston, Gates, Ellis & Rouvelas Meads
Seamon, Wasko & Ozment • ShawPittman • Steptoe & Johnson
Sutherland, Asbill & Brennan • Tory, Tory, Deslauriers & Binnington
Ungarretti & Harris • Verner, Liipfert, Bernhard, McPherson & Hand
Winston & Strawn • Winthrop, Stimson, Putnam & Roberts
• Zuckert, Scoutt & Rasenberger

OTHER

GE Capital Aviation Service, Inc. • Hiller Investment Group
International Utilities • UNC Resources

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TYPICAL ASSIGNMENTS

FOR AIRLINE CLIENTS

- Analyzed economic potential for expanded air services at hub cities
- Assessed government aviation initiatives and prepared advocacy papers
- Evaluated feasibility of hub locations for several new scheduled carriers
- Developed models to assess the economic and financial impacts of new noise and emissions stringencies
- Evaluated airline mergers and/or alliance potential for traffic, fleet, and labor efficiencies
- Analyzed carrier business plans and provided litigation support in bankruptcy case
- Evaluated competitors' marketing, pricing, and scheduling strategies
- Investigated numerous markets for passenger and cargo charter airlines
- Evaluated "down-sized" business plans for carrier operating in Chapter 11
- Assessed tour operator and charter market potentials for both scheduled and non-scheduled airlines, and for a major hotel corporation
- Assisted airline in the valuation of bankrupt carrier route authority
- Collected and evaluated data on the U.S. domestic business travel market
- Evaluated airlines under going concern, asset-based, and liquidation methods
- Raised venture capital for new start-ups and small takeover candidates
- Raised debt and lease financing for new entrant carriers
- Prepared applications and exhibits for Section 419 subsidy applications
- Prepared exhibits and testimony and appeared as expert witnesses in approximately 125 CAB/DOT adversarial cases
- Participated in attempted takeover of a U.S. domestic airline and advised on reorientation of airline operations, fleet, and marketing strategies
- Analyzed cargo and passenger traffic to support the establishment of a new overseas commuter airline
- Evaluated and negotiated alternative airport facilities leases on behalf of scheduled airlines
- Prepared performance review materials for contract cargo airlines
- Developed proposals and presentations on behalf of large contract carrier airlines for new route segments and whole systems of air express companies
- Prepared government pricing proposals for contract airlines
- Negotiated the sale of two commuter airlines
- Negotiated joint fare agreements for commuter air carriers
- Prepared country specific analysis for carrier use in bilateral negotiations
- Analyzed cargo and mail profitability under various methods of cost allocation and developed tactics for increasing profitability

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TYPICAL ASSIGNMENTS

FOR AIRLINE CLIENTS

- Developed and implemented segment profit and loss models
- Designed carrier internal accounting and budgeting systems
- Developed new operating plan for refinancing proposals
- Installed interim transition management and new operating plans under four-month contract for scheduled helicopter turnaround situation
- Negotiated new and used aircraft purchase agreements, along with maintenance, spare parts, and training support services
- Forecast future aircraft values under alternative assumptions regarding fuel prices, interest rates, and traffic growth
- Evaluated economics of new generation aircraft under alternative assumptions regarding fleet size and mix of planes
- Assisted carriers with government bids and proposals (e.g., Military Airlift Command, Logair, and U.S. Postal Service procurement)

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TYPICAL ASSIGNMENTS

FOR AIRPORT CLIENTS

- Prepared strategic marketing plans
- Prepared more than 100 airline service presentations. Supported the City of San Jose by preparing economic exhibits and testimony in DOT route case to obtain nonstop service to Tokyo
- Assisted BWI Airport in becoming the focal point of US Airways MetroJet low-fare operation
- Supported State of Connecticut in obtaining low-fare service from MetroJet, Southwest and America West at Bradley International Airport
- Supported seven cities in obtaining nonstop service to Toronto
- Assisted Portland, Oregon in obtaining authority to two additional points in Japan and becoming the first and only U.S. mainland gateway with authority to four cities in Japan
- Served as a major subcontractor for the North Carolina Air Cargo System Plan, and evaluated the potential for a global air cargo industrial complex ("Global TransPark")
- Helped Dulles to secure nonstop service to Zurich from Swissair
- Assisted Dulles in obtaining service from Delta Express
- Identified air freight development problems and opportunities at BWI Airport for Maryland Department of Transportation
- Served the Washington Dulles Parties by preparing economic exhibits and testimony (written and oral) in DOT route cases to obtain nonstop service to England, the former Soviet Union, and Italy
- Guided Raleigh/Durham Airport in securing nonstop service to London
- Forecast passenger and scheduled commercial flight distributions between the three Washington metropolitan area airports (BWI, IAD, and DCA) and performed similar studies in other multi-airport regions
- Prepared strategy analysis for airport client seeking to strengthen relations with hub carrier
- Assisted City of Harlingen in its successful efforts to obtain International Gateway status in the U.S.-Mexico All-Cargo Service Proceeding
- Prepared due diligence report for a city considering extending credit to important but financially weak tenant airline
- Analyzed scheduled passenger and cargo service deficiencies and prepared strategic plans for City of Calgary, Alberta, Canada

TYPICAL ASSIGNMENTS

FOR AIRPORT CLIENTS

- Worked with the Metropolitan New York Transportation Authority to develop a two-stage master plan forecast for Steward Airport
- Developed air cargo/express service improvement strategies and carrier presentations for Greater Peoria Airport Authority
- Guided Reno through service transitions resulting from the acquisition of its hub carrier by a major airline

TYPICAL ASSIGNMENTS

REGULATORY ACTIVITIES/POLICY ISSUES

- Analyzed opportunities and strategies for regulatory case participation
- Created economic exhibits and written and oral testimony in more than 125 aviation cases, including routes, rates, mergers, service evaluation, industry performance, and airline subsidy representing airlines, civic parties, federal government parties, and consumer associations
- Presented evaluation of the effects of major code-sharing alliances on U.S. markets and industry participants
- Prepared economic forecasts in support of international bilateral route negotiations on behalf of U.S. and foreign air carriers
- Represented cities and airlines in U.S. international bilateral route negotiations
- Evaluated economic benefits of the U.S. all-cargo industry in support of legislative proposals regarding the need for a uniform national aircraft noise policy, and a reasonable program to transition from Stage 2 to Stage 3 aircraft fleets
- Developed comprehensive study of the financial impacts on the world's airlines of new noise and emission standards proposed by ICAO
- Participated in Congressional hearings on transportation issues
- Presented written and oral testimony in Canadian Parliamentary hearings on aviation policy
- Prepared major analysis of proposed new airline industry competition rules
- Created regulatory and public relations material for a proposed major carrier alliance and for a major proposed airline merger
- Participated in numerous presentations to the DOT, DOJ and before European Community antitrust authorities regarding proposed immunized carrier alliances.

BRIAN M. CAMPBELL

CHAIRMAN

PROFESSIONAL EXPERIENCE

Dr. Campbell's thirty-seven year career has been heavily concentrated in the economic elements of commercial air transportation. After graduating from the Columbia University Graduate School of Business Administration in 1968, he was employed for seven years by Simat, Helliesen & Eichner, Inc., a transportation consulting firm. Prior to his resignation from that firm in 1975, he held the position of Vice President of the Washington office.

Between 1976 and 1982, Dr. Campbell was co-founder and senior executive of two new-entrant (post-U.S. deregulation) airlines, with primary responsibilities for planning and finance. The first of these new companies was Midway Airlines, Inc., where he held the position of Vice President of Finance and Administration from 1977 to 1980. After resigning from Midway, Dr. Campbell formed Air Chicago, Inc. and served as its Chairman and Chief Executive Officer through the planning and initial capitalization period.

Dr. Campbell returned to the consulting profession in 1982, and from 1987 until December 1993 he was a founding member of Leeper, Cambridge & Campbell, Inc. He held the position of President from 1991 to 1993. On January 1, 1994 he formed The Campbell-Hill Aviation Group, Inc.

Dr. Campbell's particular expertise is in the economic analysis of aviation issues and opportunities. This includes financial, marketing, planning, and operations aspects of airlines, airports, and equipment manufacturers. Dr. Campbell's experience is well developed from both the research and executive viewpoints. He has served numerous clients in problem diagnosis, specification and analysis of alternative courses of action, development of strategic action plans, and implementation procedures and controls.

Throughout his career, Dr. Campbell has developed various analytical models and procedures for a broad variety of clients in all major sectors of the industry. For instance, in his airport economic forecasting practice, he led the development of the only comprehensive airport activity and passenger forecasting model that realistically accounts

for inter-airport competition within a single region, such as New York/Newark, Washington/Baltimore, and San Francisco/Oakland. He also has developed and implemented detailed costing, budgeting, and financial forecasting models for airlines.

Dr Campbell's aviation expertise includes extensive consulting in air cargo and air express operations. He directed the firm's research and analysis for the Global Transpark (GTP) in North Carolina and he works closely with the creator of the GTP concept on opportunities for applying the system in other parts of the U.S. and elsewhere in the world. Currently he directs the firm's consulting services for Federal Express as well as for other air cargo and air express carriers.

Dr. Campbell has significant experience assisting airports in their air service development and marketing programs. The firm regularly serves eight U.S. airports in this fashion.

As a consultant, Dr. Campbell has appeared as an expert witness in more than 75 adversarial proceedings before regulatory boards or commissions, representing private as well as government and non-profit organizations. This cross section of cases includes routes, fares, mergers, initial certification, and industry performance evaluations. The majority of these case appearances were before the U.S. Civil Aeronautics Board and the U.S. Department of Transportation, and several occurred before the Canadian Transport Commission and the European Commission.

As a senior airline executive, Dr. Campbell raised millions of dollars of venture capital and several times that amount for lease and debt financing of used aircraft. He has managed an SEC registration for a public stock offering by a new-entrant airline; negotiated and successfully concluded purchase agreements for new and used flight equipment, spare parts inventories, training services, and airport and maintenance facilities; and managed the finance and accounting, purchase/stores, planning and administration department of new operating carriers.

AREAS OF SPECIALIZATION

- Route system development and market planning
- Litigation support and expert testimony
- Airport planning (economic forecasting and air service marketing issues)

- Financial and economic impact analysis of environmental regulations
- Aircraft evaluations and fleet planning
- Marketing, sales, promotion, advertising, and pricing strategies
- Demand forecasting (passenger, property, activity/operations)
- Proforma financial statements and measures of performance
- Corporate organization structure and planning
- Development and preparation of business plans for targeted purposes
- Presentations to financial institutions and boards of directors
- Financial services (equity and debt)
- Merger and acquisition analyses, recommendations, and integration plans
- Small community air service problems and plans for improvements
- Federal and local airport and airways policy issues
- Airport access, capacity, and noise regulation

EDUCATION

Bachelor of Commerce, McGill University

M.B.A., University of Western Ontario

Ph.D. Business Administration, Columbia University

DEAN B. HILL

PRESIDENT

PROFESSIONAL EXPERIENCE

Mr. Hill joined The Campbell-Hill Aviation Group in 1994 after 27 years of service at Delta Air Lines. He has made a successful transition from the airline sector to aviation consulting by offering his extensive airline experience to Campbell-Hill's clients. Mr. Hill designs and directs most of the firm's air service presentations for airport clients dealing with a wide range of airline targets and service objectives. For example, Mr. Hill prepared and delivered comprehensive route, scheduling, and marketing plans to several low-fare carriers that have led to the inauguration of daily low-fare flights at the client airport. He assisted another airport client in obtaining new international air service to Japan, and still another in obtaining new transatlantic service.

Mr. Hill is exceptionally qualified to deal with airline clients because he knows firsthand how they function and make route and scheduling decisions. He works easily with airport clients to fulfill their air service requirements because he is familiar with the airports' target markets, the airlines, and because he has years of experience in making route decisions at Delta. Using his legal background, Mr. Hill also works with the legal community, providing a bridge between the legal/regulatory world and the business side of airlines and airports.

Mr. Hill began his aviation career with Delta Air Lines in 1967. Between 1968 and 1981 he was part of Delta's Economic Research Department where his primary responsibilities included the planning, preparation, and sponsorship of Delta's route cases before the Civil Aeronautics Board. Mr. Hill appeared or participated, normally as Delta's chief economic witness, in every Delta route case from 1974 through 1994.

With the phase-out of airline regulation beginning in 1978, Mr. Hill was assigned the responsibility of planning the transition of Delta's route structure into the deregulated environment. His work led to the expansion of Delta's hubs at Atlanta, Dallas/Fort Worth, Cincinnati and, later, Salt Lake City. Early in the 1980's, Mr. Hill designed the comprehensive computer route model that would drive Delta's route planning for almost two decades.

As Delta's domestic hub structure matured, Mr. Hill was instrumental in extending Delta into the international arena, first from Atlanta and then from new gateways at Portland and Cincinnati. During this time Mr. Hill was heavily involved in Delta's acquisition of Western Airlines and Pan American Airways' European routes and the shuttle.

In early 1990's, Mr. Hill was again on the leading edge of route development as he led Delta's evolution into international airline alliances. He personally negotiated code-share agreements with nine airlines covering 34 routes between 1992 and 1994.

AREAS OF SPECIALIZATION

- Strategic planning for airports and airlines
- Airline alliance strategies
- Regulatory affairs (e.g. DOT, DOJ, European Commission)
- Route planning and analysis
- Air service presentation for airports
- Economic analysis of aviation issues
- Fleet planning
- Merger and acquisition analysis
- Analysis of industry issues
- Route strategies
- Code-sharing evaluation and negotiation
- Litigation support and expert testimony

EDUCATION

A.B. Political Science, Stanford University

J.D. Law, University of Kansas

Admitted to law practice in Kansas and Georgia

REX J. EDWARDS

CONSULTING ASSOCIATE

PROFESSIONAL EXPERIENCE

Mr. Edwards has worked extensively with Dr. Campbell since 1987. He assists the firm in the analysis and modeling of aviation systems. He has developed databases and analytical methods for estimating regional demand and supply patterns for several airport market studies. In addition, Mr. Edwards has developed economic impact methodologies for several FAA funding applications, and analyses of U.S. aviation competition issues. He also provided analysis of the potential impact of passenger carrier mergers on market competition. Mr. Edwards has worked extensively in analyzing new cargo airports in the U.S. and overseas, including feasibility and economic impact analysis.

He produces an annual database of current and forecast air trade flows by market, commodity type, and U.S. state of origin/destination, and supplies extracts of these data for airport market analysis, aviation bilateral negotiations, and DOT route case proceedings. In a recent analysis of Asian air policy, Mr. Edwards designed and applied a model for estimating air trade flows and the impact of air rights liberalization on economic development in China and Hong Kong. Mr. Edwards is a developer and programmer of software for transportation costing, systems modeling, and database management.

Mr. Edwards has 20 years of experience as a transportation and trade economist and researcher. Before joining Campbell-Hill as a consulting associate, Mr. Edwards was the vice president and a founding partner of Leeper, Cambridge & Campbell, Inc. Previously, he worked at several transportation and engineering firms, including Phillips Cartner & Co., Simat International, Exploration Services, and Simat, Helliesen & Eichner, Inc.

AREAS OF SPECIALIZATION

- Forecasting/modeling of transportation systems, facilities, technologies and services
- Software programming for transportation costing/database management
- Industrial level economic trade analysis
- International trade analysis by mode of transport, and by origin/destination
- Market feasibility studies
- Transportation demand forecasting

EDUCATION

B.A., Mathematics and Economics, College of William and Mary

JAMES LUNDY

SENIOR ANALYST

PROFESSIONAL EXPERIENCE

Mr. Lundy joined Campbell-Hill in June of 2003. During the course of his employment, he has worked on projects ranging from air service presentations to economic impact studies. He has provided research and analysis that has been used in expert witness testimony, including testimony in the DHL Citizenship Case before the United States Department of Transportation. Mr. Lundy's financial analysis was utilized in a presentation that played a vital role in the November 2004 repeal of the amendment to Florida's constitution that would have created a financially infeasible high-speed rail system. In addition, Mr. Lundy helped develop the statistical models that are currently used to determine intra Alaska bush mail rates for Part 121 carriers.

AREAS OF SPECIALIZATION

- Financial Research and Analysis
- Aviation Research
- Econometric Analysis
- Database and Statistical Analysis

EDUCATION

Mr. Lundy graduated Magna Cum Laude with a B.B.A. degree in Finance and a minor in Economics from James Madison University. He was awarded the Outstanding Student in Finance award for his graduating class with a 3.95 cumulative Finance grade point average and a 3.88 overall grade point average.

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KEVIN SCHORR

RESEARCH DIRECTOR

PROFESSIONAL EXPERIENCE

Mr. Schorr joined Campbell-Hill in February of 2004. His work focuses on analytical interpretation of aviation issues including forecasting airport traffic and operations, and air service development.

Previously, Mr. Schorr has held several different positions which have exposed him to many aspects of the commercial aviation industry. He was a project engineer for Morse Diesel International on the Terminal One construction project at JFK International Airport. In addition to performing a variety of engineering tasks, Mr. Schorr was responsible for managing all construction drawings and samples for this multi-million dollar project.

For his Master's thesis, he developed a linear programming model that evaluated the assignment of regional jets to TWA's St. Louis hub operation. Mr. Schorr also held an internship with TWA's strategic alliances department where his responsibilities included financial and strategic evaluation of potential codeshare partners. After spending a year as a supply chain consultant with Ernst & Young LLP, Mr. Schorr became the Director – Domestic Strategies and Alliances for TWA. In this capacity, he played a key role in the implementation of the airline's alliance with America West Airlines, including negotiation of the codeshare agreement itself. Mr. Schorr's duties also included international route planning, schedule planning and analysis, and other strategic planning activities.

For the 2½ years prior to joining Campbell-Hill, Mr. Schorr was a consultant in the transport practice of PA Consulting Group, Inc. He participated in many different projects, including analysis of hub and spoke network economics, competitive scheduling analysis, airport traffic and operations forecasting, air service presentations, use and lease agreement negotiations, rates and charges methodologies, airport traffic forecasting, and airline route profitability systems.

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AREAS OF SPECIALIZATION

- Demand forecasting (passenger, property, activity/operations)
- Economic analysis of airline hub and spoke networks
- Economic analysis of industry issues
- Route planning and analysis
- Airline alliance strategies
- Use and lease agreements (rates and charges methodologies)
- Air service presentations
- Airport marketing and incentive programs

EDUCATION

B.S. Civil Engineering, Washington University

M.S. Civil Engineering, Washington University

M.B.A., Washington University

PATRICK M. SWIFT

RESEARCH DIRECTOR

PROFESSIONAL EXPERIENCE

Mr. Swift joined Campbell-Hill in April of 1996. During his tenure with the firm, Mr. Swift has performed extensive traffic and revenue analysis for both passenger and cargo markets. He also has prepared airline schedule simulations for proposed markets and airline networks. Mr. Swift is an expert in large database management and manipulation, often dealing with U.S. passenger traffic and revenue data as well as global airline schedules. He has created several proprietary models that are in regular use by the firm.

Additionally, Mr. Swift has assisted Dr. Campbell and Mr. Fred Zusman, creators of the MADAM model, in enhancing the model to assist Metropolitan Washington Airports Authority in analyzing slot DCA perimeter rule changes during the McCain hearings. Those improvements are part of the MADAM model today.

Previously, Mr. Swift spent 10 years in the airline sector, where he developed many unique skills. He was co-founder of the second Midway Airlines and co-author of the company's business plan. In the planning of the start-up he dealt with schedules, route planning, strategy, fares and tariffs, slot management, and revenue forecasting and management. Previously, Mr. Swift was a co-founder, co-owner and Vice President of Aviation Fuels Services Company, where he specialized in the enhanced procurement and cost reduction of petroleum products. Mr. Swift acted as Director of Planning/Schedules/Stations at Jet Express, which later became Midway Airlines.

AREAS OF SPECIALIZATION

- Model Development and programming
- Computer reservations systems
- Yield management systems
- Planning
- Operations

- Scheduling
- Pricing

EDUCATION

B.S. Aeronautical Studies, Embry-Riddle Aeronautical University

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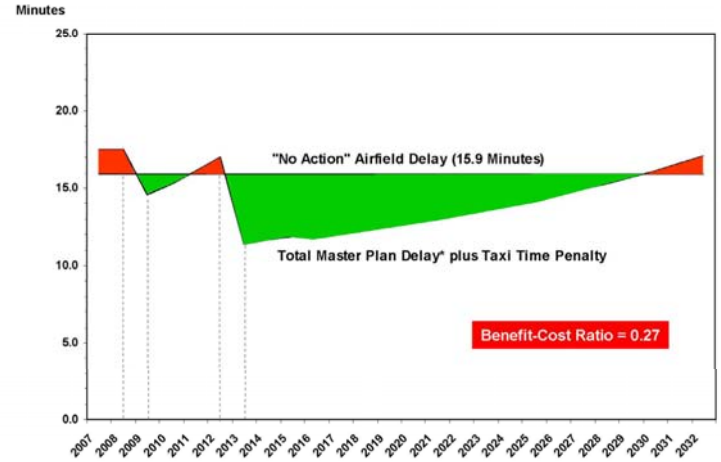
Using Delay-based Constraint, *Total Master Plan* Would Have a Limited Travel Time Advantage Over "No Action" Airfield (Based on 2002 TAF)

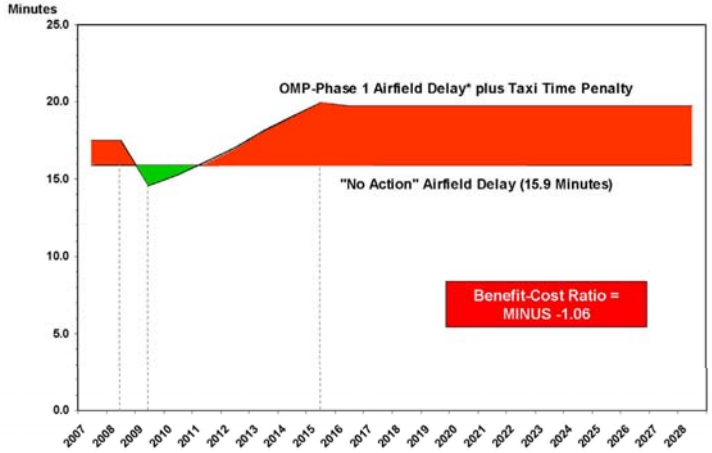


* Delay estimates are based on delay curves derived from TAAM model results with no adjustments.

Source: Exhibit 303

Exhibit B
Page 1 of 1

With Delay-based Constraint, *OMP-Phase 1 Airfield* Would Have Significant Travel Time Disbenefits (Based on 2002 TAF)



* Delay estimates are based on delay curves derived from TAAM model results with no adjustments.

Source: Exhibit 303

Exhibit C
Page 1 of 1

Exhibit D
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Comparison of FAA Operations Forecasts for ORD (2002, 2003 and 2004 TAF)

	2002 TAF calendar year ops	2003 TAF calendar year ops	2004 TAF calendar year ops
2002	922,787	907,172	907,172
2003	960,500	952,665	939,954
2004	976,544	1,054,344	985,490
2005	992,855	1,105,591	983,419
2006	1,009,439	1,135,178	1,015,934
2007	1,026,300	1,156,269	1,040,443
2008	1,041,635	1,173,853	1,061,529
2009	1,057,200	1,192,742	1,081,410
2010	1,072,706	1,211,991	1,099,749
2011	1,088,438	1,230,378	1,118,203
2012	1,104,402	1,249,390	1,137,062
2013	1,120,600	1,267,587	1,156,462
2014	1,134,910	1,286,484	1,176,499
2015	1,149,402	1,307,349	1,196,950
2016	1,164,080	1,329,521	1,219,352
2017	1,178,945	1,351,358	1,242,039
2018	1,194,000	1,373,356	1,264,569
2019	1,209,247	1,396,383	1,287,036
2020	1,224,689	1,419,795	1,309,902
2021	1,240,328	1,443,601	1,333,174
2022	1,256,167	1,467,805	1,356,859
2023	1,272,208	1,492,416	1,380,966
2024	1,288,454	1,517,439	1,405,501
2025	1,304,908	1,542,881	1,430,471
2026	1,321,571	1,568,750	1,455,885
2027	1,338,448	1,595,053	1,481,751
2028	1,355,539	1,621,797	1,508,076
2029	1,372,849	1,648,989	1,534,869
2030	1,390,381	1,676,638	1,562,138
2031	1,408,136	1,704,749	1,589,892
2032	1,426,117	1,733,333	1,618,138

Color Code

Yellow = 1.2 million ops = 5.8 min AAAW
Turquoise = 1.3 million ops -- Ricondo 2003 =10.9 min AAAW
Orange = 1.4 million which FAA in App R says = 13-16 minutes AAAW

Exhibit E
Page 1 of 3

UNMODIFIED TAFS
(In Fiscal Years)

	Enplanements			Operations			Enplanements per Operation		
Fiscal Years	2004 TAF	2003 TAF	2002 TAF	2004 TAF	2003 TAF	2002 TAF	2004 TAF	2003 TAF	2002 TAF
2002	30,943,392	31,036,583	31,026,878	901,703	901,703	901,703	34.3	34.4	34.4
2003	32,488,761	32,717,166	32,279,532	923,578	923,578	942,961	35.2	35.4	34.2
2004	35,283,104	36,299,801	33,355,660	989,082	1,039,927	956,478	35.7	34.9	34.9
2005	35,514,512	38,553,984	34,436,637	974,712	1,097,593	974,893	36.4	35.1	35.3
2006	36,560,681	40,016,916	35,482,484	1,009,541	1,129,584	990,853	36.2	35.4	35.8
2007	37,696,446	41,176,513	36,538,578	1,035,114	1,151,961	1,005,759	36.4	35.7	36.3
2008	38,760,211	42,365,388	37,616,027	1,056,429	1,169,193	1,020,212	36.7	36.2	36.9
2009	39,841,343	43,574,089	38,707,538	1,076,827	1,187,832	1,035,207	37.0	36.7	37.4
2010	40,880,131	44,809,921	39,838,460	1,095,160	1,207,471	1,050,072	37.3	37.1	37.9
2011	41,920,256	46,014,868	41,009,473	1,113,514	1,225,552	1,065,814	37.6	37.5	38.5
2012	43,004,093	47,302,742	42,193,590	1,132,271	1,244,857	1,081,429	38.0	38.0	39.0
2013	44,131,948	48,596,213	43,396,118	1,151,436	1,262,988	1,096,905	38.3	38.5	39.6
2014	45,304,159	49,932,756	44,595,908	1,171,540	1,281,384	1,111,865	38.7	39.0	40.1
2015	46,481,208	51,284,709	45,847,959	1,191,376	1,301,782	1,126,284	39.0	39.4	40.7
2016	47,696,802	52,701,547	47,128,724	1,213,672	1,324,051	1,141,590	39.3	39.8	41.3
2017	48,931,190	54,090,880	48,432,974	1,236,390	1,345,930	1,156,013	39.6	40.2	41.9
2018	50,196,123	55,503,487	49,759,252	1,258,984	1,367,640	1,170,635	39.9	40.6	42.5
2019	51,451,352	56,948,834	51,067,731	1,281,324	1,390,503	1,183,948	40.2	41.0	43.1
2020	52,722,217	58,395,018	52,404,871	1,304,171	1,414,021	1,198,192	40.4	41.3	43.7

Exhibit E
Page 2 of 3

TAFS EXTRAPOLATED
(In Fiscal Years)

	Enplanements			Operations			Enplanements per Operation		
Fiscal Years	2004 TAF	2003 TAF	2002 TAF	2004 TAF	2003 TAF	2002 TAF	2004 TAF	2003 TAF	2002 TAF
2002	30,943,392	31,036,583	31,026,878	901,703	901,703	901,703	34.3	34.4	34.4
2003	32,488,761	32,717,166	32,279,532	923,578	923,578	942,961	35.2	35.4	34.2
2004	35,283,104	36,299,801	33,355,660	989,082	1,039,927	956,478	35.7	34.9	34.9
2005	35,514,512	38,553,984	34,436,637	974,712	1,097,593	974,893	36.4	35.1	35.3
2006	36,560,681	40,016,916	35,482,484	1,009,541	1,129,584	990,853	36.2	35.4	35.8
2007	37,696,446	41,176,513	36,538,578	1,035,114	1,151,961	1,005,759	36.4	35.7	36.3
2008	38,760,211	42,365,388	37,616,027	1,056,429	1,169,193	1,020,212	36.7	36.2	36.9
2009	39,841,343	43,574,089	38,707,538	1,076,827	1,187,832	1,035,207	37.0	36.7	37.4
2010	40,880,131	44,809,921	39,838,460	1,095,160	1,207,471	1,050,072	37.3	37.1	37.9
2011	41,920,256	46,014,868	41,009,473	1,113,514	1,225,552	1,065,814	37.6	37.5	38.5
2012	43,004,093	47,302,742	42,193,590	1,132,271	1,244,857	1,081,429	38.0	38.0	39.0
2013	44,131,948	48,596,213	43,396,118	1,151,436	1,262,988	1,096,905	38.3	38.5	39.6
2014	45,304,159	49,932,756	44,595,908	1,171,540	1,281,384	1,111,865	38.7	39.0	40.1
2015	46,481,208	51,284,709	45,847,959	1,191,376	1,301,782	1,126,284	39.0	39.4	40.7
2016	47,696,802	52,701,547	47,128,724	1,213,672	1,324,051	1,141,590	39.3	39.8	41.3
2017	48,931,190	54,090,880	48,432,974	1,236,390	1,345,930	1,156,013	39.6	40.2	41.9
2018	50,196,123	55,503,487	49,759,252	1,258,984	1,367,640	1,170,635	39.9	40.6	42.5
2019	51,451,352	56,948,834	51,067,731	1,281,324	1,390,503	1,183,948	40.2	41.0	43.1
2020	52,722,217	58,395,018	52,404,871	1,304,171	1,414,021	1,198,192	40.4	41.3	43.7
2021	**54,024,473**	**59,877,927**	**53,777,022**	**1,327,425**	**1,437,937**	**1,212,607**	**40.7**	**41.6**	**44.3**
2022	**55,358,895**	**61,398,494**	**55,185,101**	**1,351,094**	**1,462,257**	**1,227,196**	**41.0**	**42.0**	**45.0**
2023	**56,726,277**	**62,957,674**	**56,630,049**	**1,375,185**	**1,486,989**	**1,241,960**	**41.2**	**42.3**	**45.6**
2024	**58,127,435**	**64,556,450**	**58,112,831**	**1,399,706**	**1,512,139**	**1,256,902**	**41.5**	**42.7**	**46.2**
2025	**59,563,201**	**66,195,825**	**59,634,438**	**1,424,664**	**1,537,714**	**1,272,024**	**41.8**	**43.0**	**46.9**
2026	**61,034,431**	**67,876,831**	**61,195,885**	**1,450,067**	**1,563,722**	**1,287,328**	**42.1**	**43.4**	**47.5**
2027	**62,542,001**	**69,600,525**	**62,798,217**	**1,475,923**	**1,590,169**	**1,302,816**	**42.4**	**43.8**	**48.2**
2028	**64,086,809**	**71,367,992**	**64,442,504**	**1,502,239**	**1,617,064**	**1,318,490**	**42.7**	**44.1**	**48.9**
2029	**65,669,774**	**73,180,342**	**66,129,845**	**1,529,026**	**1,644,414**	**1,334,352**	**42.9**	**44.5**	**49.6**
2030	**67,291,839**	**75,038,717**	**67,861,366**	**1,556,289**	**1,672,227**	**1,350,406**	**43.2**	**44.9**	**50.3**
2031	**68,953,969**	**76,944,283**	**69,638,225**	**1,584,039**	**1,700,510**	**1,366,652**	**43.5**	**45.2**	**51.0**
2032	**70,657,154**	**78,898,240**	**71,461,608**	**1,612,284**	**1,729,271**	**1,383,095**	**43.8**	**45.6**	**51.7**

Bold = Extrapolated by Campbell-Hill using the final year growth rate

Exhibit E
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TAFS EXTRAPOLATED
(In Calendar Years)

	Enplanements			Operations			Enplanements per Operation		
Fiscal Years	2004 TAF[1]	2003 TAF[1]	2002 TAF[2]	2004 TAF[1]	2003 TAF[1]	2002 TAF[3]	2004 TAF	2003 TAF	2002 TAF
2002	31,329,734	31,456,729	31,710,512	907,172	907,172	922,787	34.5	34.7	34.4
2003	33,187,347	33,612,825	32,609,000	939,954	952,665	960,500	35.3	35.3	34.0
2004	35,340,956	36,863,347	33,633,731	985,490	1,054,344	976,544	35.9	35.0	34.4
2005	35,776,054	38,919,717	34,696,477	983,419	1,105,591	992,855	36.4	35.2	34.9
2006	36,844,622	40,306,815	35,798,961	1,015,934	1,135,178	1,009,439	36.3	35.5	35.5
2007	37,962,387	41,473,732	36,943,000	1,040,443	1,156,269	1,026,300	36.5	35.9	36.0
2008	39,030,494	42,667,563	38,027,250	1,061,529	1,173,853	1,041,635	36.8	36.3	36.5
2009	40,101,040	43,883,047	39,149,000	1,081,410	1,192,742	1,057,200	37.1	36.8	37.0
2010	41,140,162	45,111,158	40,280,622	1,099,749	1,211,991	1,072,706	37.4	37.2	37.6
2011	42,191,215	46,336,837	41,450,618	1,118,203	1,230,378	1,088,438	37.7	37.7	38.1
2012	43,286,057	47,626,110	42,660,538	1,137,062	1,249,390	1,104,402	38.1	38.1	38.6
2013	44,425,001	48,930,349	43,912,000	1,156,462	1,267,587	1,120,600	38.4	38.6	39.2
2014	45,598,421	50,270,744	45,119,418	1,176,499	1,286,484	1,134,910	38.8	39.1	39.8
2015	46,785,107	51,638,919	46,367,492	1,196,950	1,307,349	1,149,402	39.1	39.5	40.3
2016	48,005,399	53,048,880	47,657,820	1,219,352	1,329,521	1,164,080	39.4	39.9	40.9
2017	49,247,423	54,444,032	48,992,074	1,242,039	1,351,358	1,178,945	39.7	40.3	41.6
2018	50,509,930	55,864,824	50,372,000	1,264,569	1,373,356	1,194,000	39.9	40.7	42.2
2019	51,769,068	57,310,380	51,050,000	1,287,036	1,396,383	**1,209,247**	40.2	41.0	**42.2**
2020	**53,059,595**	**58,793,341**	52,200,000	**1,309,902**	**1,419,795**	**1,224,689**	40.5	41.4	**42.6**
2021	**54,382,292**	**60,314,676**	53,400,000	**1,333,174**	**1,443,601**	**1,240,328**	**40.8**	**41.8**	**41.2**
2022	**55,737,962**	**61,875,376**	54,550,000	**1,356,859**	**1,467,805**	**1,256,167**	**41.1**	**42.2**	**41.6**
2023	**57,127,427**	**63,476,461**	55,750,000	**1,380,966**	**1,492,416**	**1,272,208**	**41.4**	**42.5**	**42.0**
2024	**58,551,530**	**65,118,976**	56,900,000	**1,405,501**	**1,517,439**	**1,288,454**	**41.7**	**42.9**	**42.3**
2025	**60,011,133**	**66,803,993**	58,050,000	**1,430,471**	**1,542,881**	**1,304,908**	**42.0**	**43.3**	**42.7**
2026	**61,507,122**	**68,532,610**	59,250,000	**1,455,885**	**1,568,750**	**1,321,571**	**42.2**	**43.7**	**43.1**
2027	**63,040,404**	**70,305,958**	60,400,000	**1,481,751**	**1,595,053**	**1,338,448**	**42.5**	**44.1**	**43.4**
2028	**64,611,908**	**72,125,192**	61,550,000	**1,508,076**	**1,621,797**	**1,355,539**	**42.8**	**44.5**	**43.7**
2029	**66,222,588**	**73,991,501**	62,750,000	**1,534,869**	**1,648,989**	**1,372,849**	**43.1**	**44.9**	**44.0**
2030	**67,873,419**	**75,906,103**	63,900,000	**1,562,138**	**1,676,638**	**1,390,381**	**43.4**	**45.3**	**44.3**
2031	**69,565,403**	**77,870,247**	65,050,000	**1,589,892**	**1,704,749**	**1,408,136**	**43.8**	**45.7**	**44.6**
2032	**71,299,566**	**79,885,214**	66,250,000	**1,618,138**	**1,733,333**	**1,426,117**	**44.1**	**46.1**	**44.8**

Bold = Extrapolated by Campbell-Hill using the final year growth rate

1/ Converted to calendar years by Campbell-Hill using Ricondo methodology of CY1=(0.75 x FY1)+ (0.25 x FY2)
2/ CY Unconstrained 2002 TAF prepared for the DEIS
3/ 2002-2018 from DEIS, 2019-2032 extrapolated by Campbell-Hill using the final year growth rate

Exhibit F
Page 1 of 7

THE FAA SHOULD NOT HAVE REDUCED PASSENGER PROJECTIONS IN THE 2004 TAF

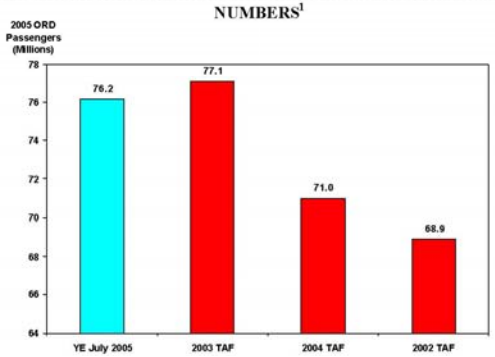
The significant decline in forecast ORD enplanements from the 2003 TAF to the 2004 TAF (forecast 2020 enplanements declined by 9.7%) defies all reason. It is abundantly clear that in the development of its 2004 TAF, the FAA ignored available data that showed, for the most recent history, increased passenger and economic activity. In fact, the 2003 TAF for 2005 is closer to **actual** 2005 passenger levels than either the 2004 or the 2002 TAF. The 2003 TAF fiscal year 2005 passenger number is 1.2% higher than actual ORD passengers for the year ended July 2005. The 2004 TAF forecast fiscal year 2005 passenger number is **6.8% lower** and the 2002 TAF number is **9.6% lower** than the current level (See Chart 1).[1] Further evidence that the FAA overlooked important data in developing the 2004 TAF is that all quarters in 2004 had extremely high quarter over quarter (prior year) passenger growth rates (Q1=6%, Q2=12%, Q3=11%, Q4=6%). Except for the first quarter, the quarter over quarter growth rates in 2003 were lower than in 2004 (Q1=9%, Q2= 5%, Q3=1%, Q4=3%) (See Chart 2). Using these data, the FAA erroneously predicted that passengers would only grow by 0.66% from fiscal year 2004 to fiscal year 2005. The passenger level for the year ended July 2005 is actually 4% higher than the passenger level for the year ended July 2004. So passenger growth at ORD accelerated during 2004 rather than decelerated as the FAA's TAF would have one believe.

[1] The actual passenger numbers are from the Chicago Department of Aviation. These passenger numbers are given in terms of total passengers, not enplanements. To compare the enplanements from the TAFs to the City's passenger numbers, Campbell-Hill multiplied TAF enplanements by two.

1

THE FAA SHOULD NOT HAVE REDUCED PASSENGER PROJECTIONS IN THE 2004 TAF

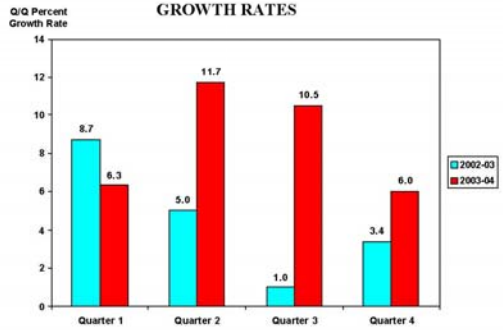
Chart 1
2003 TAF PASSENGER NUMBERS ARE CLOSER TO ACTUAL PASSENGERS NUMBERS[1]



1/ TAF enplanements multiplied by two to get total passengers
Sources: Chicago Department of Aviation and FAA Terminal Area Forecasts

THE FAA SHOULD NOT HAVE REDUCED PASSENGER PROJECTIONS IN THE 2004 TAF

Chart 2
2004 PASSENGER GROWTH RATES WERE HIGHER THAN 2003 PASSENGER GROWTH RATES



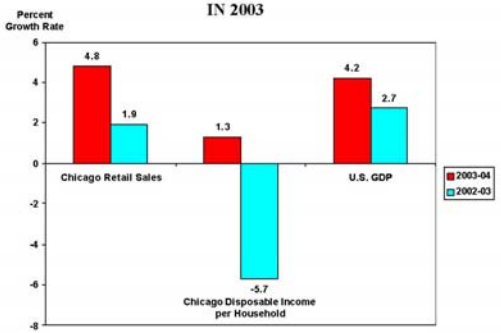
Source: Chicago Department of Aviation

According to FAA forecast methodology, it is also supposed to use both local and national economic variables in developing the annual TAFs. Once again, the FAA overlooked regional and national economic growth in developing its 2004 TAF. Total retail sales in the Chicago region were 4.8% higher in 2004 than they were in 2003. In contrast, total retail sales increased by only 1.9% from 2002 to 2003. Disposable income per household increased by 1.3% from 2003 to 2004, while it declined by 5.7% from 2002 to 2003.[2] The growth rate in the national economy, as measured by the real (adjusted for inflation) gross domestic product, was also higher from 2003 to 2004 than from 2002 to 2003 (4.2% vs. 2.7%).[3] In fact, the GDP growth from 2003 to 2004 was the highest one-year increase since 1998 to 1999. Any rational aviation economist would have increased forecast growth rates from the 2003 TAF to the 2004 TAF- not reduced them!

[2] The regional economic data are from Sales and Marketing Management, 2004 and 2003 Survey of Buying Power, September 2004 and September 2004.
[3] From the U.S. Department of Commerce

THE FAA SHOULD NOT HAVE REDUCED PASSENGER PROJECTIONS IN THE 2004 TAF

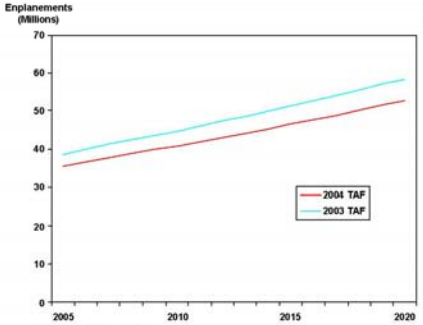
Chart 3
THE GROWTH IN ECONOMIC ACTIVITY WAS STRONGER IN 2004 THAN IT WAS IN 2003



Sources: Sales and Marketing Management, 2004 and 2003 Survey of Buying Power, September 2004 and September 2004; U.S. Department of Commerce.

THE FAA SHOULD NOT HAVE REDUCED PASSENGER PROJECTIONS IN THE 2004 TAF

Chart 4
DESPITE THE STRONGER GROWTH FROM 2003 TO 2004 THE FAA ILLOGICALLY REDUCED ITS 2004 FORECAST



Sources: FAA 2003 and 2004 TAFs

In the FAA's response to Campbell-Hill's April 6 comments, it states that the 2004 TAF "serves to validate the 2002 TAF that has been used for the EIS (Comment 55)." There is no reason why this should be the case. In contrast to the recent period preceding the 2004 TAF preparation, the aviation and economic activity preceding the development of the 2002 TAF was dismal. According the National Terminal Area Forecast, FY 2002 enplanements had decreased by 11% from FY 2000. During the same time period, ORD enplanements declined by 10%.[4] Further, the U.S. real GDP increased by only 1.2% annually from 2000 to 2002. These events should have produced a much lower forecast than the 2004 forecast that was preceded with such rapid growth. Instead, the 2020 ORD enplanements from the 2004 TAF are only 0.61% higher than the 2020 enplanements in the 2002 TAF. It seems clear that the FAA rigged the 2004 TAF to be similar to its 2002

[4] Enplanement numbers are from the TAF.

THE FAA SHOULD NOT HAVE REDUCED PASSENGER PROJECTIONS IN THE 2004 TAF

in order to salvage and justify (partially) its and the City's reliance upon the low-ball 2002 TAF.

If the most reasonable forecast of the three, the 2003 forecast, was used the FAA predicts that in 2018 with the OMP ORD would experience between 13 and 16 minutes of delay.[5] According to the FAA, at around 15 minutes "market forces will likely constrain aircraft operations."[6] This makes it clear why the FAA has had to justify its use of the 2002 TAF, even though the 2003 TAF was out for an entire year before the DEIS was released - ORD will be out of capacity just five years after the OMP opens.[7] And this conclusion destroys all economic viability and sensibility of the OMP, as demonstrated quantitatively in Campbell-Hill's comments on the City's Benefit/Cost Analysis (supplied June 6, 2005).

Corroborating Evidence from the FAA

The FAA released some files of spreadsheets and analysis that underlie the preparation of its ORD TAF's for 2002, 2003 and 2004. These files were supplied pursuant to the commenters' FOIA requests.[8]

These previously unreleased workpapers show clearly that the FAA's initial forecasting model results agree with Campbell-Hill's conclusion that forecasts prepared in 2003/04 should produce higher long term growth rates than forecasts developed a year earlier (2003/2002).

As shown in Table F-1 below, the FAA TAF model produced a 0.5% per year higher growth rate for air carrier operations in the 2004 TAF than it did for the 2003 TAF. This indicates that even the 2003 TAF forecasts are too low for purposes of evaluating the efficacy and performance of OMP (alternative C). If, as the FAA estimates, the 2003 TAF operations forecast for 2018 would produce an average delay of

[5] FAA, FEIS, page R-11.
[6] FAA, FEIS, page B-22.
[7] As displayed in Section 2.0 of Campbell-Hill's April 6 report, it is likely that the OMP will be out of capacity even prior to the five years forecast by the FAA.
[8] See letter from Joseph Kareganis to Barry Cooper at FAA dated August 8, 2005

THE FAA SHOULD NOT HAVE REDUCED PASSENGER PROJECTIONS IN THE 2004 TAF

13-16 minutes, it is reasonable to conclude that the adjusted 2004 TAF value[9] would produce delays well over 25 minutes in 2018. In fact, from the FAA's own data it is reasonable to conclude that ORD delay would reach 16 minutes when OMP opens in 2013 or 2014. This finding is confirmed by Campbell-Hill's independent analysis.

Finally, it must be noted that none of these delay estimates include the 6.5 minute additional taxi time occasioned by the OMP design. Inclusion of the added taxi time produces NEGATIVE BENEFITS for the OMP from DAY 1.

Table F-1
UNDERLYING FAA DOCUMENTS DISCLOSE THE FACT THAT ITS FORECASTING MODEL PRODUCED HIGHER FUTURE GROWTH RATES FOR THE 2004 TAF COMPARED TO THE 2003 TAF

ORD Annual Passenger Growth Rate	2002/03-2020	2005-20
2004 TAF	3.3%	2.8%
2003 TAF	3.3%	2.7%
2004 TAF Higher than 2003 TAF	0.0%	0.1%

ORD Annual Departure Growth Rate	2002/03-2020	2005-20
2004 TAF	2.4%	2.0%
2003 TAF	2.2%	1.5%
2004 TAF Higher than 2003 TAF	0.2%	0.5%

Sources: Files received from the FAA entitled ORD Forecast Methodology and ORD 04 Forecast Methodology.

[9] Adjusted by adding 0.5% per year to the 1.5% growth rate in the 2003 TAF (Table F-1).

050623_01

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June 23, 2005

VIA FAX 202-493-5032 and By Certified Mail Return Receipt Requested

National Freedom of Information Act Staff
Federal Aviation Administration
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800 Independence Ave., SW
Washington, DC 20591

VIA FAX 847-294-8490 and By Certified Mail Return Receipt Requested

Ms. Vickie Morris, FOIA Coordinator
FAA Great Lakes Region, AGL-4
2300 E. Devon Avenue
Des Plaines, IL 60018

VIA E-MAIL
Mr. Barry Cooper
Chicago Area Modernization Program Office
AGL-1CM
FAA Great Lakes Region
2300 E. Devon Avenue
Des Plaines, Illinois 60018

VIA E-MAIL
Mr. Perry A. Kupietz
Regional Counsel
Great Lakes Region
Federal Aviation Administration
2300 E. Devon Avenue
Des Plaines, IL 60018

Re: Freedom of Information Act Request relating to metropolitan Chicago and O'Hare Airport

Dear Gentlepersons:

This Freedom of Information Act request is intended to make certain that our pre-existing FOIA requests are not summarily terminated by FAA and that the categories of document requests we have made are clear. Our prior FOIA requests in this matter were made on November 19, 2003 by the Suburban O'Hare Commission and on February 26, 2004 by St. John's United Church of Christ, Helen Runge, Shirley Steele, the Rest Haven Cemetery Association, Robert Placek, Leroy Heinrich, and Roxanne Mitchell (copies enclosed).

Mr. Kupietz, Regional Counsel for the FAA Great Lakes region has stated in an e-mail to me that our prior FOIA requests terminated as of December 17, 2004 — an assertion as to which we disagree — and that FAA therefore had no obligation to produce documents generated after December 17, 2004.

Comment	Response
Attachment 5 to Karaganis-Cohn	The Karaganis White and Magel letters dated June 23, 2005, November 19, 2003, February 26, 2004, and June 22, 2005 were submitted in this order as an attachment to the September 6, 2005 comments filed by Karaganis and Cohn on the FEIS. In regard to these broad FOIA requests, the FAA refers the commenter to Section 8.1 of the ROD. As noted in Section 8.1, beginning in December 2003 the FAA began the process of providing and/or making available over 15,000 documents (comprising over 8 million pages) for a fee of $3,000. FAA has responded to the November 19, 2003 and the February 26, 2004 FOIA requests in a letter dated April 29, 2005. This FOIA response has been administratively appealed.

Freedom of Information Request
June 23, 2005
Page 2

We believe that our prior requests are still active but — to the extent FAA disagrees with our position — this letter represents a new FOIA request for the same categories of documents. In addition, we have added sub-categories to our requests to more specifically identify document categories which we believe were included within our prior requests. Please produce for our inspection the following documents:

1. **All documents relating to the proposed project entitled "O'Hare Modernization Program" ("OMP") proposed by the City of Chicago.** This category includes, but is not limited to, all documents relating to the Airport Master Plan, the Environmental Impact Statement (EIS) and the Airport Layout Plan for the OMP, and includes all documents relating to the estimated costs of the OMP, cost/benefit analyses (whether included in or not included in the NEPA review), passenger/aircraft forecasts, the prospective financing of the OMP, the scheduling of the OMP, and the scheduling of the EIS, the Master Plan, and the FAA decision-making process. This category also includes all computer simulation programs, computer input and output, and CAD files relating to the OMP.

2. **All documents relating to the "World Gateway" project at O'Hare, including documents relating to its present and projected status and implementation.** This includes all documents relating to the World Gateway project as it relates to the OMP project.

3. **All documents relating to the National Plan for Integrated Airport System (NPIAS) and any state or regional plan as they are related to the State of Illinois and/or commercial air carrier airports in the six county Chicago metropolitan area.** This request focuses specifically on the statement in the Record of Decision (ROD) in the 1984 O'Hare EIS:

> "Development of another air carrier airport to serve the Chicago Metropolitan Area will be studied as part of a State System Plan to be prepared by the Illinois Department of Transportation under a series of grants to be funded by the FAA's Airport Improvement Program. The initial grant was issued in September 1984."
>
> 1984 FAA ROD at 4

This request seeks documents relating to that State System Plan and the relationship of that State System Plan to the current O'Hare Master Plan as well as any subsequent State System Plan that encompasses commercial airports in the metropolitan Chicago area.

4. **All documents that relate to the inclusion of development projects at O'Hare and Midway in the Illinois State System Plan, the formulation and development of the National Plan of Integrated Airport Systems (NPIA) and/or in the FAA's National Priority System and ACIP process.** This request includes all documents relating to the inclusion of Phase One of the "O'Hare Modernization Project" (OMP) in the 2005-2009 NPIAS (National Plan For Integrated Airport Systems) and, if the Phase One project is included in the National Priority System/ACIP process – all such documents.

Freedom of Information Request
June 23, 2005
Page 3

5. **All documents relating to the preparation and development of scheduling orders or agreements implemented at O'Hare since 2002, including but not limited to the August 2004 FAA scheduling order and the March 25, 2005 Notice of Proposed Rulemaking (NPRM).**

6. **All documents relating to the preparation of the report entitled *Capacity Needs in the National Airspace System* (FAA/MITRE 2004).**

7. **All documents requested in the enclosed June 22, 2005 letter from Joseph Karaganis to Barry Cooper.**

8. **All documents relating to FAA consideration of the complaints and objections of the "Religious Objectors" as to the proposed destruction of St. Johannes Cemetery and Rest Haven Cemetery by the OMP and Phase One.**

9. **All documents relating to the deletion of the Lima Lima taxiway from Phase One of the OMP and the financing and other problems associated with Lima Lima.**

10. **All documents as to any problems with OMP or Phase One that are not related to Lima Lima – including any documents that relate to a Chicago Tribune story of June 20, 2003 describing other cost increases and anticipated construction delays with OMP.**

11. **All documents as to the cost estimates for Phase One and the full OMP.**

12. **All documents as to the financing of Phase One or the OMP.**

We believe that these documents are encompassed within our previous FOIA requests but were withheld from our examination due to Mr. Kupietz assertion (with which we disagree) that the cut-off date for production for our previous FOIA requests was December 17, 2004.

We are not asking FAA to copy these documents. We are simply asking to inspect and scan these documents where the documents are in paper format and ask that computer files be placed on CD-ROM or DVD disks where the documents are in electronic format. Please contact me to arrange a convenient time for us to examine the documents responsive to this request as soon as possible.

Freedom of Information Request
June 23, 2005
Page 4

Sincerely yours,

Joseph Karaganis
Counsel for the Suburban O'Hare Commission, St. John's United Church of Christ, Helen Runge, Shirley Steele, the Rest Haven Cemetery Association, Robert Placek, Leroy Heinrich, and Roxanne Mitchell

Enclosures

cc: Robert Cohn

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November 19, 2003

VIA FAX (847)-294-7498

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VIA FAX 847-294-8490

Ms. Vickie Morris, FOIA Coordinator
FAA Great Lakes Region, AGL-4
2300 E. Devon Avenue
Des Plaines, IL 60018

Re: Freedom of Information Act Request reference prior Freedom of Information Act (FOIA) Request Document Request No. 2003—O02431GL

Dear Mr. Kupietz and Ms. Morris:

Pursuant to our discussions with Mr. Andrew Steinberg and Mr. Kupietz, the Suburban O'Hare Commission has agreed, subject to the conditions set forth below, to modify its prior FOIA request of January 3, 2003 and now requests access to examine and copy the following documents.

1. **All documents relating to the proposed project entitled "O'Hare Modernization Program" ("OMP") proposed by the City of Chicago.** This category includes, but is not limited to, all documents relating to the Airport Master Plan, the Environmental Impact Statement (EIS) and the Airport Layout Plan for the OMP, and includes all documents relating to the estimated costs of the OMP, cost/benefit analyses (whether included in or not included in the NEPA review), passenger/aircraft forecasts, the prospective financing of the OMP, the scheduling of the OMP, and the scheduling of the EIS, the Master Plan, and the FAA decisionmaking process. This category also includes all computer simulation programs, computer input and output, and CAD files relating to the OMP.

2. **All documents relating to the "World Gateway" project at O'Hare, including documents relating to its present and projected status and implementation.** This includes all documents relating to the World Gateway project as it relates to the OMP project.

Mr. Perry A. Kupietz and Ms. Vickie Morris
November 19, 2003
Page 2

3. **All documents relating to the National Plan for Integrated Airport System (NPIAS) and any state or regional plan as they are related to the State of Illinois and/or commercial air carrier airports in the six county Chicago metropolitan area.** This request focuses specifically on the statement in the Record of Decision (ROD) in the 1984 O'Hare EIS:

> "Development of another air carrier airport to serve the Chicago Metropolitan Area will be studied as part of a State System Plan to be prepared by the Illinois Department of Transportation under a series of grants to be funded by the FAA's Airport Improvement Program. The initial grant was issued in September 1984."
>
> 1984 FAA ROD at 4

This request seeks documents relating to that State System Plan and the relationship of that State System Plan to the current O'Hare Master Plan as well as any subsequent State System Plan that encompasses commercial airports in the metropolitan Chicago area.

This request also seeks all documents that relate to the inclusion of development projects at O'Hare and Midway in the Illinois State System Plan, the Field Formulation of the National Plan of Integrated Airport Systems and in the FAA's National Priority System.

4. **All documents relating to the post 2000 Delay Task Force at O'Hare.** With the exception of category 3, this request is limited to documents generated in the last 5 years.

Our agreement to narrow our request is in response to the following understandings:

1. While we and the FAA continue to have a dispute about whether we have satisfied the requirements for either no charge for FAA searches or a waiver of those charges, Mr. Steinberg indicated that we could have access to the documents without resolving this dispute if we agreed to pay a "nominal" fee (which was in the range of 2-3 thousand dollars). We are prepared to pay this amount (but no more) to save the transactional costs which would be expended in resolving this dispute over FAA fees. By doing so, we in no way concede the merits of the FAA's assertion as to access charges.
2. Mr. Kupietz indicated that a large number of documents within the modified request related to technical "NAV-AID" matters. We agreed that if we could examine samples of the documents in their location, we may not need to examine these "NAV-AID" documents.

Mr. Perry A. Kupietz and Ms. Vickie Morris
November 19, 2003
Page 3

3. Mr. Kupietz asked if we wished to examine informal documents and communications such as e-mails. We do wish to examine such documents.
4. Our document request extends to computer programs and computer input and output material used by FAA or used by Chicago to assess Chicago's O'Hare expansion proposal. We wish to obtain these materials in electronic form as soon as possible so that our experts can evaluate these materials.

Please get back to me as soon as possible as to when we can have access to these materials.

Sincerely yours

Joseph Karaganis

Joseph Karaganis

Mr. Andrew B. Steinberg
Chief Counsel FAA

Mr. Robert Cohn

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February 26, 2004

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Ms. Vickie Morris, FOIA Coordinator
FAA Great Lakes Region, AGL-4
2300 E. Devon Avenue
Des Plaines, IL 60018

Re: Freedom of Information Act Request

Dear FOIA Coordinators:

Pursuant to the Freedom of Information Act (FOIA), on behalf of St. John's United Church of Christ, Helen Runge, Shirley Steele, the Rest Haven Cemetery Association, Robert Placek, Leroy Heinrich, and Roxanne Mitchell, I hereby request the following information described in this letter. The Suburban O'Hare Commission has previously made a FOIA request as a representative of these requestors, but I am making this request so that the record is absolutely clear that these specific requestors have made this FOIA request.

On behalf of these requestors, I request the opportunity to inspect and examine all documents in the possession of the Federal Aviation Administration national, regional and district offices relating to the following categories of information. By "documents" we mean to include electronic and computer files and programs, electronic graphics, computer data and e-mail, as well as paper material:

1. **All documents relating to the proposed project entitled "O'Hare Modernization Program" ("OMP") proposed by the City of Chicago.** This category includes, but is not limited to, all documents relating to the Airport Master Plan, the Environmental Impact Statement (EIS) and the Airport Layout Plan for the OMP, and includes all documents relating to the estimated costs of the OMP, cost/benefit analyses (whether included in or not included in the NEPA review), passenger/aircraft forecasts, the prospective financing of the OMP, the scheduling of the OMP, and the scheduling of the EIS, the Master Plan, and the

FAA decisionmaking process. This category also includes all computer simulation programs, computer input and output, and CAD files relating to the OMP.

2. **All documents relating to the "World Gateway" project at O'Hare, including documents relating to its present and projected status and implementation.** This includes all documents relating to the World Gateway project as it relates to the OMP project.

3. **All documents relating to the National Plan for Integrated Airport System (NPIAS) and any state or regional plan as they are related to the State of Illinois and/or commercial air carrier airports in the six county Chicago metropolitan area.** This request focuses specifically on the statement in the Record of Decision (ROD) in the 1984 O'Hare EIS:

> "Development of another air carrier airport to serve the Chicago Metropolitan Area will be studied as part of a State System Plan to be prepared by the Illinois Department of Transportation under a series of grants to be funded by the FAA's Airport Improvement Program. The initial grant was issued in September 1984."
>
> 1984 FAA ROD at 4.

This request seeks documents relating to that State System Plan and the relationship of that State System Plan to the current O'Hare Master Plan as well as any subsequent State System Plan that encompasses commercial airports in the metropolitan Chicago area.

This request also seeks all documents that relate to the inclusion of development projects at O'Hare and Midway in the Illinois State System Plan, the Field Formulation of the National Plan of Integrated Airport Systems and in the FAA's National Priority System.

4. **All documents relating to the post 2000 Delay Task Force at O'Hare.** With the exception of category 3, this request is limited to documents generated in the last 5 years.

5. **Paper and/or electronic file indices and electronic scanned images.** All file indexes or file databases relating to the organization of files and documents maintained by the FAA relating to the O'Hare Modernization Program, the World Gateway Program, or to the categories of information requested in this FOIA request. We are also requesting electronic copies of any scanned images of the

FOIA Request by Religious Objectors and Property Owners
February 26, 2004
Page 3

documents requested in this letter. It is our understanding that electronic computerized indices of some or all of the documents being requested in this letter are being maintained by FAA. Further, we understand that some or all of the documents being requested in this letter have been scanned by FAA or its contractor and are maintained in a scanned, electronic format.

We are *not* asking for copies of these documents at this time. We only wish to inspect them and we will scan at your offices any documents of which we want copies. As to electronic documents, we will arrange with you to have copies transferred to CD disks.

Further, we do not want to wait until all of the documents from all of the categories listed above are assembled. Nor do we wish to wait until each office within FAA is examined.

If the FAA proposes to withhold any documents requested in this letter on any basis, including any claimed exemption under the Freedom of Information Act, we request that the FAA prepare and provide us with an index of documents excluded from disclosure.

Please get back to me as to when documents within any of these categories of documents are available for inspection.

Please understand that the requestors here believe that they have independent rights (*i.e.*, independent of FOIA) to examine the documents requested in this letter as part of FAA's responsibilities to these requestors under the Due Process Clause and basic rules of administrative procedure. By making this FOIA request, the requestors are not waiving the assertion of these independent rights. These requestors are simply making certain that the record is clear that access to these documents to these requestors has been denied by the FAA. FAA has already effectively denied these requests by the Suburban O'Hare Commission by withholding these documents from inspection for more than one year.

Sincerely yours,

Joseph Karaganis

cc: Mr. Andrew B. Steinberg
Chief Counsel FAA
Mr. Robert Cohn

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June 22, 2005

VIA E-MAIL
Mr. Barry Cooper
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2300 E. Devon Avenue
Des Plaines, Illinois 60018

Re: ASV calculations and documents

Dear Barry:

This letter is in further correspondence as to documents that are encompassed within the scope of our existing FOIA requests but which have not been produced.

A. ASV Calculations:

On May 26, I sent you an e-mail (enclosed) asking for any documents and calculations and documents relating to "ASV" calculations for either the existing O'Hare and for any build options — as well as for the ASV calculations for other Chicago regional airports as described in Appendix C.

As I stated in my e-mail, we also know that ASV calculations were performed for both the existing O'Hare airport and the OMP option(s) in the FAA 2004 report *Capacity Needs in the National Airspace System* FAA/MITRE 2004)

Further, in the FAA's *Portfolio of Goals* the following statement is made under the Topic Heading "**Annual Service Volume**":

> Delay curves were developed for each of the 35 OEP airports for the existing airport layout and with new runways where proposed. Based on an acceptable level of delay, the number of operations that can reasonably be expected to occur at the airport were determined. A consistent calculation technique to estimate capacity was used for all airports.

Mr. Barry Cooper
June 22, 2005
Page 2

Further, some sort of ASV calculation was used to calculate delay and capacity for the 2005-2009 NPIAS report which states that the AAAW delay at O'Hare is 7 minutes.

> The Annual Service Volume (ASV), at a particular level of delay, is used to measure airfield capacity at individual airports. Traditionally, a delay of four to six minutes per aircraft operation is used in ASV calculations. The relationship between aircraft operations and delay is non-linear, and often exponential. Experience shows that airfield delay increases gradually with rising levels of traffic until a certain level is reached. Thereafter, the delay rises more rapidly with increased traffic. For larger airports, it is our observation that the onset of the more rapid growth in delay often occurs when delay is between 4 and 6 minutes per aircraft operation.

NPIAS p. 12

The 2005-2009 NPIAS report (issued in September 2004) goes on the state that:

> "Table 4 lists the average minutes of delay per operation for 35 airports contained in the FAA's OEP"

NPIAS p. 14

In that Table the AAAW delay for O'Hare is listed as 7 minutes. We are seeking both the ASV and delay calculations for O'Hare and for the other OEP airports in Table 4 of the 2005-2005 NPIAS that were used in the 2005-2009 NPIAS. In particular — as to the other airports in Table 4 of the 2005-2005 NPIAS we wish to examine what delay levels (*e.g.*, minutes of AAAW) were used to calculate ASV for these airports.

We also believe that ASV calculations were made for O'Hare (both existing and at least Phase One of OMP) for the preparation of the NPIAS submission(s) that were developed at either the District and/or Great Lakes Region for inclusion in the 2005-2009 NPIAS. Presumably, these ASV and related delay and capacity analyses were used in developing the

Please make available the documents relating to ASV and related delay and capacity assessments for existing O'Hare and OMP, as well as the ASV's for the other airports in Appendix C of the DEIS and the OEP airports listed in Table 4 of the 2005-2009 NPIAS.

B. Materials from 2004 report *Capacity Needs in the National Airspace System* FAA/MITRE 2004)

We agreed in our discussion last Friday that the documents generated and used in the 2004 report *Capacity Needs in the National Airspace System* FAA/MITRE 2004) (hereafter the "MITRE Report") contained significant amounts of information relating to O'Hare and OMP. Among the areas of the MITRE Report that are encompassed within our previous FOIA request are:

Mr. Barry Cooper
June 22, 2005
Page 3

1. Documents from the so-called Future Airport Capacity Task Force (FACT) that relate to any assessments of O'Hare and Midway (*i.e.*, either O'Hare individually or as a part of a system with Midway) to meet metropolitan demand. MITRE Report at p. 1
2. The calculation of ASV for O'Hare (both existing and various phases of OMP) and for Midway. Of particular interest are the average delay values that were used in calculating ASV for each of the OEP airports and the level of delay used for ASV for Midway and O'Hare (both existing and various phases of OMP) See p 26 of the MITRE Report.
3. The documents and data that are the basis for the statement at p. 10 of the MITRE Report that:

   > Aggressive assumptions for the airfield reconfigurations at ORD and PHL were used in the 2020 analysis. Using these assumptions the airports are expected to have sufficient capacity to meet demand growth.
   >
   > ***
   >
   > The reconfiguration of ORD and the construction of a new runway at PBI will add sufficient capacity to satisfy expected demand levels in the Chicago and South Florida metropolitan areas.

   MITRE Report at p. 10

4. The statement is made at p. 21 of the MITRE Report that the FACT analysis team updated the FAA's *Airport Capacity Benchmark Report* ("as part of the FACT analysis") MITRE further states at p. 22: "To produce the capacity estimates necessary for the FACT analysis the team utilized the Enhanced Airfield Capacity Model (E-ACM). The E-ACM is a MITRE-developed update of the widely used FAA Airfield Capacity Model." We wish to examine all documents that relate to the development of the "updated benchmark report" that was developed by the FACT team. Of particular interest are documents relating to the level of delay (if any) that was used as a variable or factor in determining the capacity values used in the updated *Airport Capacity Benchmark Report*.
5. The MITRE Report at p. 13 states that MITRE modeled both existing O'Hare and various versions of OMP by means of an NAS-wide simulation model. We wish to examine documents relating to this modeling effort as it related to O'Hare.
6. The MITRE Report at p. 14 states that MITRE performed calculations as to the capacity of both existing O'Hare and various versions of OMP by means of "extrapolation of historical data" We wish to examine documents relating to this analytical effort as it related to O'Hare.
7. The MITRE Report at p. 14 states that MITRE performed "socio-economic demand modeling" for the Chicago metropolitan area, including O'Hare and

Midway. (See also MITRE Report at 24) We wish to examine documents relating to this modeling effort.

8. The MITRE Report at pp. 26-27 says that an NAS-Wide Simulation of Airport Delay was used to calculate delays at existing O'Hare as well as delays at various OMP stages. We wish to examine all documents relating to this modeling effort and its results.

9. The MITRE Report at p. 27 states that "capacity-related delay estimates" were made comparing existing O'Hare and future iterations of OMP. We wish to examine all documents relating to this analytical effort.

C. Documents relating to the preparation of the submission By the Chicago District, Great Lakes Region, and FAA Headquarters relating to the inclusion of OMP elements in the 2005-2009 NPIAS and related National Priority System

It is clear from the 2005-2009 NPIAS that FAA has made a determination that Phase One of the OMP meets the requirements of 49 U.S.C. §47103:

> "The [NPIAS] plan shall include the kind and estimated cost of eligible airport development the Secretary of Transportation considers necessary to provide a safe, efficient, and integrated system of public-use airports adequate to anticipate and meet the needs of civil aeronautics"
>
> 49 U.S.C. §47103 (emphasis added)

FAA has included the purported $2.9 billion cost of Phase One in the 2005-2009 NPIAS as "eligible airport development the Secretary of Transportation considers necessary to provide a safe, efficient, and integrated system of public-use airports adequate to anticipate and meet the needs of civil aeronautics."

There must have been documents generated at the Chicago District office, the Great Lakes Region, and FAA Headquarters relating to the reasons why FAA determined that OMP Phase One met the requirements of §47103. Similarly, there must be documents that relate to possible inclusion of Phase One in the related National Priority System and NPIAS-ACIP database.

We have specifically asked for these documents in our prior FOIA requests:

> "This request also seeks all documents that relate to the inclusion of development projects at O'Hare and Midway in the Illinois State System Plan, the Field Formulation of the National Plan of Integrated Airport Systems and in the FAA's National Priority System."

None of the documents provided thus far include the documents relating to the inclusion of Phase One in the NPIAS and the inclusion of Phase One in the National Priority System-ACIP process.

Please get back to me as soon as possible as to when these documents will be available. To the extent these documents are in electronic format, I ask that these documents be transmitted to me immediately.

Sincerely yours,

Joseph Karaganis

cc: Mr. Robert Cohn
Mr. Joseph Del Balzo

050805_02

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August 5, 2005

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VIA E-MAIL
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Regional Counsel
Great Lakes Region
Federal Aviation Administration
2300 E. Devon Avenue
Des Plaines, IL 60018

Dear Gentlepersons:

On June 23, 2005 I sent FAA a detailed supplemental FOIA request, asking for documents that had been requested in earlier FOIA requests on November 19, 2003 by the Suburban O'Hare Commission and on February 26, 2004 by St. John's United Church of Christ, Helen Runge, Shirley Steele, the Rest Haven Cemetery Association, Robert Placek, Leroy Heinrich, and Roxanne Mitchell.

The documents we requested in our FOIA request are highly relevant to the claims made by FAA in its Draft and Final Environmental Impact Statements and in various related claims made by FAA— including but limited to claims made by FAA to the DOT Inspector General relating to both Phase One and the full build OMP-Master Plan.

Unfortunately, FAA has not yet made the requested documents available and that failure has severely hampered the ability of my clients to prepare responsive and intelligible comments on the Final EIS and related FAA decisions concerning Phase One and the full build OMP-Master Plan.

Comment	Response
Attachment 6 to Karaganis-Cohn	The Karaganis White and Magel letter dated August 5, 2005 was submitted as an attachment to the September 6, 2005 comments filed by Karaganis and Cohn on the FEIS. In regard to these broad FOIA requests, the FAA refers the commenter to Section 8.1 of the ROD.

FAA officials
August 5, 2005
Page 2

I am asking FAA to immediately make the requested documents available. In an attempt to expedite delivery of these documents and our utilization of these documents in preparation of our response, I am highlighting various sub-categories of documents as I read through portions of the FEIS. I will send FAA individualized requests for these subcategories as I find them in the review of the FEIS.

I do not consider these new FOIA requests but believe these sub-categories are clearly encompassed within earlier FOIA requests. My individual identification of these sub-categories is simply to identify significant sub-categories of relevant documents and highlight the fact that these documents have not been produced to date. Moreover, FAA's continued failure to produce these documents in a timely manner shall serve as one of the bases of my clients' challenge to any FAA decision that is based in part on any claims made by FAA to which the missing documents are relevant.

The initial sub-categories of documents (in addition to the detailed categorization I provided in earlier FOIA correspondence) are:

1. All documents relating to the preparation of the 2002, 2003, and 2004 TAFs for O'Hare. The FAA makes the following statement (emphasis added) at page U.4-540 of the FEIS:

   > "FAA disagrees with the comment that the decrease in activity from the 2003 TAF to the 2004 TAF is unjustified. FAA conducts a comprehensive review of recent airline activity and future outlook for each annual TAF. This review is coordinated with a review of national aviation trends used in developing the forecast of aviation activity for the nation as a whole. In preparing the 2004 TAF, FAA determined that the long-term outlook for ORD was different from that reported in the 2003 TAF, and this is reflected in the results of the 2004 TAF. The FAA finds the commenter data for a few recent historical years unpersuasive on this issue. The assumptions regarding the future growth at ORD are based on the judgments of the FAA's forecast experts.

   FAA surely did not pull the 2004 TAF out of thin air. The assumptions and data on which the FAA based the 2004 TAF and, *inter alia*, the reasons for the dramatic reduction in forecast enplanements between the 2003 and 2004 TAF, must have been memorialized in appropriate documentation. As the United States Court of Appeals for the District of Columbia Circuit emphasized in *Village of Bensenville v. Federal Aviation Administration*, 376 F. 3d 1114 (D.C. Circuit 2004), the FAA cannot rely on bald, unsupported claims of "expertise". FAA's claims of expert judgments must be supported by data and logic in the record. The FAA claims at p. U.4-538 that the 2004 TAF "validates" the FAA's continued use of the 2002 TAF. However, absent disclosure and production of the underlying documentation relating to the differences between the 2003 and 2004 TAF, there is a legitimate suspicion

FAA officials
August 5, 2005
Page 3

that the 2004 TAF was deliberately reduced to fit FAA's pre-determined support for approval of the OMP proposal.

2. All documents used and referenced in preparation of the Final EIS. FAA has previously stated that it has provided all reference documents used in preparation of the draft EIS. To the extent that additional documents were used in preparation of the Final EIS, or to the extent that documents relating to either the Draft EIS or Final EIS have not been previously produced, please produce those documents.
3. All documents relating to communications between the FAA and the DOT Inspector General relating to the OMP.
4. All documents relating to modeling performed by MITRE relating to the OMP. The Final EIS makes reference to modeling studies performed by MITRE relating to OMP but to my knowledge — despite our prior requests— no documents relating to such MITRE studies have been produced.

Again, these itemized sub-categories are already included within our long standing and still unsatisfied FOIA requests to the FAA. Please produce these documents immediately so that we can use these documents in preparing our responses to the FEIS. Again, by itemizing these sub-categories, we are not waiving our overall concern and objections that FAA is withholding thousands of relevant documents from our inspection — documents which are relevant to the FAA decisions at issue as to Phase One and the OMP. Please produce the documents identified in our June 23, 2005 supplemental FOIA request as well.

Sincerely yours,

Joe Karaganis

Joseph Karaganis

cc: Mr. Robert Cohn

Comment	Response
Attachment 7 to Karaganis-Cohn	The Karaganis White and Magel letter dated August 26, 2005 was submitted as an attachment to the September 6, 2005 comments filed by Karaganis and Cohn on the FEIS. To the extent that the commenter presents new issues, these matters are addressed in the Record of Decision.

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August 26, 2005

VIA E-MAIL
Mr. Barry Cooper
Chicago Area Modernization Program Office
AGL-1CM
FAA Great Lakes Region
2300 E. Devon Avenue
Des Plaines, Illinois 60018

Dear Mr. Cooper:

I am in receipt of your letter of August 26, 2005 received this afternoon denying our request for an extension of time in which to respond to the FEIS and FAA's proposed resolution of the issues of the religious cemeteries. For the record, it is important to set forth our strong disagreement with the assertions and reasons given by FAA for denying this request. Let me address each of the assertions:

- **"8 million pages" of documents.** FAA persists in a mantra that it has made available massive numbers of pages of documents (7.5 million quoted in the EIS) now 8 million. Put bluntly, FAA has been putting forward a massive and largely irrelevant "haystack" (the so-called 7.5 million pages) while hiding several thousand important and relevant "needles" — *i.e.,* thousands of pages of relevant documents which we have been asking for the past several years and which are relevant to the FAA's claims made in the FEIS and elsewhere regarding the OMP.

  For example, as you know the "demand" (*i.e.,* the forecast) used by FAA is critical to the analysis of impacts and alternatives. FAA makes the claim repeatedly in the FEIS that the FAA is free to use the 2002 Terminal Area Forecast (TAF) because the 2004 TAF "validates" the 2002 TAF. We have been asking for all the documents relating to OMP and O'Hare for many months; and the technical and evidentiary support for the 2002, 2003 and 2004 TAFs are a central evidentiary element of any objective analysis of the FEIS. The demand side of the analysis clearly drives the entire EIS and other analytical process — both as to impacts and to alternatives. Yet despite our repeated requests for this critical TAF information and documents, FAA did not send us this information until today, August 26, 2005; and even this late arriving material appears to be incomplete. Yet FAA now wants us to analyze and comment on this late

Mr. Barry Cooper
August 26, 2005
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arrived (August 26) and incomplete material by September 6, 2005, less than two weeks away.

Similarly, FAA continues to refuse to provide us with underlying documents and data as to delay calculations and capacity analyses — information which apparently contradicts claims made in the FEIS. For example, FAA finally today (after refusing to produce this information for many months) purported to provide us with the data supporting the claim in the 2005-2009 NPIAS that says that the annual delay for 2002 at O'Hare was seven minutes. This seven minute delay tends to rebut FAA's claim that delays at O'Hare today are over 15 minutes because traffic levels today and reported delays similar to levels reported in 2002. Yet despite our requests for the detailed evidence and backup for the NPIAS reported values, FAA sent us today only a single sheet reporting the same values set forth in the NPIAS without providing any of the backup documentation. It appears as if the FAA is deliberately trying to hide relevant information.

The breadth of FAA's withholding of documents — documents needed to effectively prepare our response to the FEIS— goes even further. We have been asking for the ASV (annual service volume) calculations for O'Hare and for OMP as well as the calculation of ASV for the so-called 35 OEP airports. We believe that this data and information will show that FAA has misled the public on the claims of capacity for OMP. Understating demand (erroneous TAF) and overstating supply (overstating acceptable delay) has enabled FAA to dramatically skew the impacts and alternatives analysis of the EIS.

These are but a few of the examples of major categories of documents which are highly relevant to the FEIS and FAA decisionmaking on OMP but which the FAA continues to hide from our clients. Rather than being in the public domain, FAA has kept these critical documents hidden somewhere in the bowels of the agency — afraid to expose them to public scrutiny.

- **FAA's claim that the material to be reviewed is only 319 pages.** Contrary to FAA's assertion that the FEIS review only requires us to analyze 319 pages, Appendix U alone covers approximately 1,000 pages involving complex and detailed cross-checking to follow FAA's labyrinthine cross-references. Similarly there have been modifications to the other volumes of the FEIS that require examination to address the limited chapter sections to which the FAA has solicited comments.
- **FAA's proposed action on Religious Rights.** FAA ignored our repeated requests for information regarding our clients' religious rights for several years prior to the issuance of the FEIS. FAA deliberately ignored the subject in the earlier DEIS. Yet now FAA asks us to examine the entire FEIS within the framework of the federal Religious Freedom Restoration Act — a position the FAA announced for the first time at the end of July. As you know, the federal Religious Freedom Restoration Act sets entirely different and far more rigorous standards than NEPA and some of the other federal statutes involved here. FAA is clearly attempting to sweep FAA's patent violation of the federal Religious Freedom Restoration Act under the rug by foreclosing the Religious Objectors from conducting a thorough review of the FEIS

Mr. Barry Cooper
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and related evidence (see discussion of missing documents below) before being forced to comment on FAA's proposed destruction of St. Johannes Cemetery.

- **The FOIA Requests are not separate from the FAA's decision-making process.** Your letter contains the self-serving declaration that — despite the fact that the documents FAA is withholding or has failed to deliver under FOIA are highly relevant to the FAA's decisions on the OMP— the FOIA and FAA NEPA processes are "separate and apart". Based on this *ipse dixit* declaration you announce that FAA will proceed to decision without producing the requested documents and without giving our clients an opportunity to prepare our comments on the FEIS after first having had an opportunity to review these documents. We believe that FAA's action is hypocritical and a deliberate attempt to deprive our clients rights under the Constitution and federal statutes.

In conclusion, FAA's denial of our request is but one more example of FAA's apparent zeal to rubber stamp a deeply flawed O'Hare expansion proposal and of FAA's apparent willingness to join with Chicago in callous and knowing disregard of our rights (and FAA's responsibilities) under the Constitution and laws of the United States.

Sincerely yours,

Joe Karaganis

Joseph Karaganis

cc: Congressman Henry Hyde
Mr. Robert Cohn

Comment	Response
Attachment 8 to Karaganis-Cohn	Filed as attachment to Karaganis-Cohn's September 6, 2005 comments on FEIS.

CHICAGO'S O'HARE MODERNIZATION PROGRAM

Federal Aviation Administration

Report Number: AV-2005-067

Date Issued: July 21, 2005

Memorandum

U.S. Department of Transportation
Office of the Secretary of Transportation
Office of Inspector General

Subject: ACTION: Report on Chicago's O'Hare Modernization Program
Federal Aviation Administration
AV-2005-067

Date: July 21, 2005

From: Kenneth M. Mead
Inspector General

Reply to Attn. of: JA-10

To: Federal Aviation Administrator

In response to a request from Representative Henry J. Hyde and former Senator Peter G. Fitzgerald, we examined the Federal Aviation Administration's (FAA) process for reviewing and approving the City of Chicago's (City) O'Hare Modernization Program (OMP). This report presents the results of our review of FAA's involvement in the City's OMP.

Specifically, we focused our review on FAA's (1) process for reviewing the financial viability of the OMP, and (2) actions to redesign the airspace to accommodate the OMP. We did not assess FAA's Environmental Impact Statement (EIS) of the OMP during this review, since there is a well-established Federal environmental review process governed by the National Environmental Policy Act and other applicable environmental laws. This review process involves the participation of several Federal agencies, state and local authorities, and the general public. Moreover, the Federal courts are available for those with legal standing (see the scope and methodology in Exhibit A).

We periodically met with FAA officials and provided the Agency a draft copy of this report for its review. Where appropriate, we have revised the report to reflect FAA's comments. FAA generally agreed with the report's recommendations.

INTRODUCTION

Delays and congestion have plagued O'Hare for more than 30 years, in spite of regulatory intervention. Controls on landing slots and schedules have temporarily brought some relief, but they do not accommodate demand and can stifle competition.

In 2001, the City developed the OMP—a proposal to build one new runway, relocate three existing runways, extend two others, and complete other infrastructure improvements designed to increase the efficiency and capacity of O'Hare. The OMP is estimated at $6.6 billion[1] in 2001 dollars. In addition to the OMP, the O'Hare 20-year Master Plan also includes the Capital Improvement Program (ongoing maintenance projects such as resurfacing a runway at an estimated cost of $4.1 billion) and the World Gateway Program (additional gates and terminals on the east side of O'Hare at an estimated cost of $2.6 billion). The total estimated cost of the O'Hare 20-year Master Plan is $13.3 billion. Exhibit B contains further information on O'Hare's 20-year Master Plan.

The City plans to implement the OMP in two phases over an 8-year period. Phase 1 and Phase 2 are scheduled to be completed by 2009 and 2013, respectively. The City is planning on receiving a sizable Federal investment for the OMP, with approximately $2 billion coming from FAA-approved Passenger Facility Charges (PFCs, $1.45 billion) and Airport Improvement Program grants (AIP, $594 million). Exhibit C provides further information on the OMP funding streams and approval process. The City's and FAA's models have projected that the OMP will provide significant benefits in reducing delays and increasing capacity at O'Hare. According to these models, delays will be reduced from an average of 19.2 minutes per flight in 2004 to an average of 5.0 minutes per flight in 2013, while expanding airfield capacity from an average of 2,712 flights per day in 2004 to an average of 3,169 flights per day (peak month average daily flights[2]) in 2013.

RESULTS IN BRIEF

There is no question that capacity constraints exist at O'Hare and that these constraints affect the efficiency of the entire National Airspace System. The OMP is designed to address O'Hare's capacity constraints. But the complexity and magnitude of the OMP cannot be overstated, as it is one of the largest and most costly reconfigurations of an airport in the United States. In terms of national

[1] The $6.6 billion cost estimate for the OMP includes the cost of all airfield projects (design and construction), land acquisition, noise mitigation, and other ancillary costs associated with the OMP.
[2] In modeling the OMP, FAA used the "peak month average daily flights." This number is the average daily flights during the peak month of the year (the month with the most flights).

infrastructure projects, the OMP may be second only to Boston's Central Artery/Ted Williams Tunnel project (the "Big Dig"), which is estimated to cost $14.6 billion when completed. We identified two areas where FAA will need to focus greater attention: (1) verifying that the OMP's costs, schedule, and sources of funding are realistic, reasonable, and credible and that any known or reasonably anticipated risks that could affect the Phase 1 and Phase 2 project milestones are fully disclosed and considered; and (2) redesigning airspace necessary to realize the benefits of OMP airfield improvements in reducing flight delays and increasing capacity.

We are making a series of recommendations to FAA regarding the performance of its due diligence when reviewing the OMP financial plan prior to approving any PFC or AIP grants and with respect to the airspace redesign changes that are key to realizing the benefits represented in the OMP. One of these recommendations pertains to the appointment of one senior FAA official with overall responsibility for airspace redesign to direct the planning, resources, budget, schedule, and implementation of airspace changes necessary to support the OMP.

- ***OMP Costs, Schedule, and Sources of Funding Must Be Verified as Realistic, Reasonable, and Credible.*** The City has submitted to FAA a Request for a Letter of Intent (LOI) to provide multi-year funding ($30 million each year for 10 years) of AIP discretionary grants for OMP Phase 1 projects. As part of the LOI, the City submitted a summary of the estimated capital costs for the entire OMP, including more specific costs for Phase 1 projects, a preliminary implementation schedule for all OMP airfield projects, and a financial plan identifying the sources of funds and expected cash flows needed to complete the Phase 1 projects.

  FAA's policy requires a review of the financial plan for Phase 1 before approving PFC or AIP funds. As part of its review, FAA should consider not only the stability of the financial plan for Phase 1, but also the reasonableness of the overall OMP financial plan, which includes Phase 2. This is critical because most of the benefits of the OMP are contingent upon completing both Phase 1 and Phase 2. The airlines' approval of Phase 1 is conditional on the City receiving the $300 million in Federal funds, and the airlines have yet to approve Phase 2. FAA must also ensure that the benefits and costs represented for both Phase 1 and Phase 2 are fully disclosed and considered.

  Since the announcement of the OMP in 2001, the City has advertised the OMP as a two-phased, multi-year program with an estimated price tag of $6.6 billion in 2001 dollars. Projections made in 2001 dollars are not likely to be the actual cost of the OMP. We have seen cost estimates prepared by the City ranging from $7.1 billion to $8 billion. FAA, in its review of the LOI, must ensure that the statement of costs is credible and includes escalations for any anticipated

schedule delays and rising labor or materials costs. For example, the cost of iron and steel has increased nearly 48 percent between 2001 and June 2005.

The City estimated that Phase 2 will cost $2.5 billion, but detailed project specifications and cost estimates will not be completed until after 2006, when the City completes the final design of Phase 2. FAA will need to evaluate the risk to cost estimates due to changes in project scope, final engineering changes, labor and material cost increases, and other factors and then will need to disclose their potential effect on the cost of the OMP. FAA must ensure the financial plan and the accompanying schedule are realistic and take into account any risks to cost due to potential schedule slippage (e.g., a delay in FAA's approval of the OMP or winter weather delaying construction). This is apart from ongoing lawsuits and the threat of other legal action to delay or prevent the OMP from being completed.

In its OMP financial plan, the City is making assumptions about the amount of money it will receive from two major funding sources that require congressional or other Federal approval, which the City has not yet received.

- First, the City is requesting an unprecedented amount of AIP discretionary funds for Phase 1—$300 million or $30 million each year for 10 years. It is not known at this time whether FAA or Congress will approve this level of AIP discretionary funding given that FAA's budget request of $3 billion in AIP funding for fiscal year (FY) 2006 is $472 million less than in FY 2005. Furthermore, there will be competing interests for AIP discretionary grants in the near future as other airports begin planning large modernization programs. For example, in February 2005, as part of its $3 billion expansion program, Washington-Dulles International Airport requested $208 million in discretionary AIP grant funds to build a fourth runway.[3] The Los Angeles International Airport is planning an approximately $11 billion modernization plan, for which we understand the Airport may request a significant AIP discretionary grant.

- Second, the City is assuming Congress will authorize an increase in the PFC maximum charge from $4.50 to $6.00 by 2011. If the increase is not authorized, the City will be overstating its PFC collections by nearly $241 million for the 4-year period from 2011 through 2014.

FAA needs to ensure the City has adequately disclosed how it plans to cover any funding shortfall from AIP discretionary grants or PFCs, including who will pay what amounts and when. Additional OMP costs or reductions in AIP

[3] The total cost of the fourth runway is estimated at $356 million. Of that, Dulles Airport is requesting $207.8 million in AIP discretionary funds (58 percent of the total project costs), along with $34.3 million in PFCs (9.6 percent of the total cost).

discretionary grants or PFCs will require the City to issue additional bonds to address the funding gap. For example, if the City's request for the entire $300 million in AIP discretionary grants for Phase 1 is not approved, the City plans to issue additional bonds to cover the shortfall. According to the City, an additional $300 million bond issuance would require estimated debt service payments of approximately $24 million annually. These payments would ultimately be passed on to the airlines through increases in aircraft landing and terminal use fees. The airlines would in turn attempt to pass on these costs to the consumer. FAA will need to consider the impact of any funding shortfall from AIP discretionary grants or PFCs and the corresponding effect of fee increases on the airlines' cost per enplaned passenger before making the appropriate disclosures.

The Majority-In-Interest airlines[4] have agreed to Phase 1, but their approval is contingent upon the City receiving $300 million in AIP discretionary grants for the Phase 1 airfield projects. The Majority-In-Interest airlines are still negotiating with the City for approval of Phase 2, including the funding sources. FAA must exercise due diligence when reviewing the City's request for an LOI to ensure that the sources of funding are sufficient to handle the costs of Phase 1 and Phase 2 projects and that the funds are not otherwise committed or encumbered for other programs in O'Hare's Master Plan. We are making this point because FAA has legal obligations to assure that the project costs not paid for with AIP grants or PFC revenue will in fact be covered by non-Federal funds (such as airport-issued bonds) before approving the LOI for Phase 1.

FAA needs to fully and thoroughly carry out its legal obligation for approving and authorizing PFC and AIP grants. Under the PFC statute, FAA is required to make several findings before approving a PFC, including one that the proposed PFC will result in no more revenue than is necessary for financing the specific project. In July 2004, the United States Court of Appeals for the District of Columbia Circuit reversed FAA's approval of the City of Chicago's $221 million PFC application for the preparation of the EIS at O'Hare, concluding that FAA had not fulfilled its legal obligation to analyze the cost.

The Court stated that, "FAA cannot simply declare its 'expertise' [in estimating costs]; it must exercise that expertise and demonstrate sufficiently that it has done so." Given that there could be future legal challenges to FAA's decisions on the O'Hare modernization project, it is important for FAA to

[4] Majority-In-Interest is defined in the O'Hare Airport Use Agreement. During a fiscal year, the Majority-In-Interest is either (a) any five or more airline parties that together paid 60 percent or more of the preceding fiscal year's airport fees and charges or (b) any majority of airline parties that together paid 50 percent or more of the preceding fiscal year's airport fees and charges.

exercise due diligence in reviewing the City's request for an LOI, including the OMP financial plan, and any PFC applications the City submits to fund the OMP's design and construction projects. The Court's decision underscores the need for FAA to take corrective action and exercise due diligence in reviewing the financial plan.

In our opinion, now is the time for FAA to raise its level of review for projects the size and scope of the OMP. The City has provided the necessary information to allow the FAA to carefully scrutinize all aspects of and assumptions made in the OMP financial plan. Now, it is the responsibility of the FAA, like any prudent investor, to analyze the validity and reasonableness of the City's plan.

- ***Airspace Changes Must Be Implemented To Achieve and Sustain the Benefits of the OMP, but FAA Has Had Problems Making the Transition From Planning to Implementation.*** The planned benefits (reduction in delays and increase in operations) of the OMP airfield changes and other infrastructure changes are contingent upon FAA completing substantial changes to the airspace. In other words, for the public investment to yield the benefits as advertised, airspace changes must be implemented with the OMP airfield changes or else FAA may have to re-implement administrative controls to manage congestion at O'Hare.

  By implementing *both* the OMP and the required airspace changes as opposed to doing nothing (not implementing the OMP and not making changes to airspace):

  - In 2009 after the completion of Phase 1, the average daily delay per flight is forecasted to decrease from 15.9 minutes to 10.3 minutes and then to 5.0 minutes after the completion of Phase 2 in 2013.
  - In 2009, the forecasted number of daily flight operations (arrivals and departures) increases from 2,750 to 2,987 and then to 3,169 in 2013.

  Airspace changes are needed not only within a 40-mile radius of O'Hare but in other parts of the Great Lakes region: over 300 miles east to Cleveland, Ohio, and 400 miles northwest to Minneapolis, Minnesota.

  Airspace changes required to support the OMP include designing new air traffic control sectors and routes, acquiring new radio frequencies, and purchasing and deploying radar and communication equipment. FAA needs to synchronize airspace changes with airfield improvements, sequence them in an order that maximizes the benefits from the airfield projects, and commit the necessary funding levels to support the airspace changes. The key now is

moving from planning to implementation, with implementation being the vulnerable point in FAA's past efforts to redesign airspace.

Our prior work[5] has demonstrated that FAA has substantial difficulty moving from the planning stages of airspace redesign to execution due to (1) unreliable cost and schedules for the vast majority of airspace projects because FAA does not clearly identify what is needed to shift from project design to project implementation, (2) delays of 3 years or more in projects due in part to changes in project scope, and (3) lack of coordination between the designers of the airspace and the implementers of the changes. The problem in the case of O'Hare is that if FAA's airspace changes are not implemented in synchrony with the OMP airfield changes, the benefits of investing in the OMP will be greatly overstated.

With respect to the airspace redesign necessary for the OMP, FAA has established the Chicago Area Modernization Program Office to coordinate Agency efforts. This is an important step, but airspace changes not under the Program Office's jurisdiction, *outside of Chicago airspace* (east to Cleveland and northwest to Minneapolis), also need to be made to sustain expected downstream capacity increases and reductions in delays. These changes are critical and need to be in place by 2013.

The current cap on flight arrivals at O'Hare is set to expire in October 2005. FAA has proposed extending the cap on flight arrivals until 2008. According to FAA, the proposed extension to the cap on flight arrivals at O'Hare will gradually be relaxed as Phase 1 projects are completed and will be lifted entirely in 2008. However, if required airspace changes are not fully implemented, then O'Hare will not receive the long-term benefits of reducing delays and increasing capacity (or the benefits represented in the OMP Draft EIS) from an average of 19.2 minutes per flight in 2004 to an average of 5.0 minutes per flight in 2013, while expanding airfield capacity from an average of 2,712 flights per day in 2004 to 3,169 flights per day (peak month average) in 2013. If this is not achieved, FAA may have to continue to implement administrative controls to manage congestion at O'Hare. Our work has identified specific actions that FAA should take to ensure the planned airspace changes for the OMP are implemented.

AGENCY COMMENTS

On April 29, 2005, we provided FAA with a draft of this report. FAA provided us with a written response, and on May 26, 2005, the Deputy Associate

[5] OIG Report Number AV-2005-059, "Airspace Redesign Efforts Are Critical To Enhance Capacity but Need Major Improvements," May 13, 2005. OIG reports can be found on our website: www.oig.dot.gov.

Administrator for Airports and other Agency officials met with us to discuss FAA's comments and our recommendations. After this meeting, FAA provided us with additional comments clarifying its actions taken or planned to address our recommendations.

FAA disagreed with some conclusions in the report. As stated in its comments, FAA does not agree with the implication that the OMP proposal (and FAA's role in regard to the proposal) is analogous to the "Big Dig." Our reference to the Big Dig is to illustrate that the OMP, like the Big Dig, is a large transportation project that requires an increased level of oversight of project costs and schedule. FAA also disagreed with the report's characterization of the City's AIP funding request of $300 million for the OMP as "unprecedented." Only Denver has received over $300 million in AIP discretionary funding, and this was to build the new Denver airport. FAA provided $340 million in discretionary AIP funding for the construction of multiple runways at a new airport in Denver. However, the $340 million was not a single LOI. The $340 million consisted of a $250 million LOI in discretionary funding and about $90 million in pre-LOI AIP discretionary funds. Thus, we are not aware of, nor did FAA provide support for, any other single airport sponsor's LOI request or planned LOI request for a single grant of $300 million in AIP discretionary funds for an existing airport.

In addition, in its comments, FAA disagrees with the implication that it is not exercising due diligence in analyzing the reasonableness and credibility of project costs and sources of funding for airport development projects. In our draft report, we identified the need for increased oversight of the OMP given the size and scope of the project and the potential for cost or schedule overruns. In its comments, FAA stated that in the past it has hired financial experts from the private sector to review requests for Federal funding for large and complex airport development projects in Seattle and St. Louis. Also, FAA stated it will hire an airport financing consultant to help analyze the benefits and costs, schedule, and proposed financing for both phases of the OMP. This analysis will include four tasks: (1) establishing the current financial situation at O'Hare, (2) analyzing financial impacts under the proposed OMP Phase 1, (3) analyzing financial impacts under the full OMP, and (4) reviewing the benefit-cost analysis. The analysis of financial impacts will include a sensitivity analysis examining the impact of delays in construction schedules, cost increases, and deviations from the City's requested LOI amount or payment schedule.

We would like to point out the importance of doing this review in terms of FAA's due diligence to ensure the OMP's costs, schedule, and sources of funding are realistic, reasonable, and credible. The City's estimate of $6.6 billion (2001 dollars) is not likely to be the final cost of the OMP due to increases in construction costs since 2001, potential schedule changes, and less precision in

Phase 2 costs compared to Phase 1 costs. Also, FAA has been admonished by a Federal court for its financial review in the past. In 2004, the United States Court of Appeals for the District of Columbia Circuit reversed FAA's approval of the City of Chicago's $221 million PFC application for O'Hare, concluding that FAA had not fulfilled its legal obligation to analyze the cost.

FAA generally agreed with our recommendations. As stated previously, FAA intends to hire a financial consultant to help in its review of the OMP's benefits and costs, schedule, and financing. Also, FAA stated that it will appoint a senior official to serve as a focal point within FAA's Air Traffic Organization to coordinate the execution and timing of planned airspace changes associated with the OMP implementation. To fully meet the intent of our recommendation, we believe FAA needs to appoint an official to oversee the airspace redesign with the proper responsibility and authority to decide what needs to be done and when it needs to be done and then direct FAA units to do it. We recognize that this may require someone that can cut across bureaucratic lines, has authority over the entire project, and can speak directly to the Administrator or Deputy Administrator of FAA.

In light of the importance of the actions FAA must take to ensure the success of the OMP, we intend to review FAA's and its consultant's actions from time to time. FAA's full response can be found in the Appendix.

BACKGROUND

Severe capacity constraints at O'Hare affect the efficiency of the entire National Airspace System. In the past 3 years, the percentage of delayed flight arrivals at O'Hare increased from 19 percent in 2002 to 27.9 percent in 2004, and the percentage of delayed flight departures increased from 18.4 percent in 2002 to 28.2 percent in 2004. Aviation delays and congestion have been a significant problem at O'Hare for more than 30 years. In 1985, FAA established allocation procedures for slots at O'Hare, including use-or-lose provisions and permission to buy and sell slots in a secondary market. In 2000, Congress relaxed the slot rules and phased them out entirely in 2002.

Since that time, recurring delays and congestion have caused FAA to intervene with an array of administrative actions to mitigate O'Hare congestion and prevent disruptions from cascading throughout the aviation system. FAA intervened three times in 2004 to get the airlines to reduce flight schedules. Administrative responses are not a desirable long-term solution to capacity constraints at O'Hare because prolonged regulatory intervention can restrict demand and inhibit competition.

There have been alternative proposals to solving capacity constraints at O'Hare and relieving congestion at both O'Hare and Chicago's Midway Airport, such as building a new airport or expanding smaller nearby airports. Plans to build a third airport have been on the drawing board since the 1980s. At one time, the Lake Calumet area on the southeast side of Chicago was considered as a location for a third airport. It was demonstrated in a study to be the most expensive and environmentally damaging of the sites evaluated. Subsequently, the Illinois Legislature failed to support development of an airport at the site.

Since 1991, the most likely site for a third airport has been near Peotone, Illinois, about 35 miles from downtown Chicago. FAA so far has provided $8 million in funding for the Master Plan and EIS of what would be called the South Suburban Airport. The need or location of a third airport is not within the scope of this review. However, the financial plan and airspace redesign for the OMP will have some impact on how much Federal funding is available for other airport projects in the Chicago area and whether FAA can make additional airspace changes to accommodate a third Chicago area airport.

The OMP will be implemented in two phases over an 8-year period. In Phase 1, scheduled to be completed by 2009 at a cost of $4.1 billion (62 percent of the OMP costs), the City plans to construct one new runway, relocate one runway, extend an existing runway, and mitigate noise (at a cost of $2.6 billion); it will also construct radar facilities, an automated people mover, and a west satellite concourse (at a cost of $1.5 billion). Over 90 percent of the design for the new runway has been completed, and over 50 percent of the design has been completed for the runway relocation and extension. In Phase 2, scheduled to be completed by 2013, the City plans to relocate two runways, extend one runway, and construct a new western terminal building at a cost of $2.5 billion (38 percent of the OMP costs). Planning-level cost estimates (which by definition are less precise than final design estimates) for Phase 2 have been completed, with the final design scheduled to begin in 2006 and be completed in 2011.

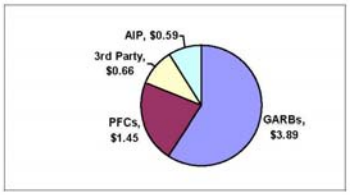
The Majority-In-Interest airlines—United Airlines, American Airlines, and 13 other airlines—are on the record as supporting the OMP and its phased implementation. They have agreed to Phase 1, but this approval is contingent upon the City receiving $300 million in AIP discretionary grants for the Phase 1 airfield projects, which FAA must approve and Congress must appropriate.

The City is currently negotiating with the Majority-In-Interest airlines for approval of the OMP Phase 2, and it is not known at this time when or under what conditions the City will receive that approval. Phase 2 approval from the Majority-In-Interest airlines is contingent on the support of either United or American, the dominant carriers at O'Hare. Together, United (46 percent) and

American (32 percent) paid approximately 78 percent of O'Hare's airport fees and charges in FY 2003.

As shown in Figure 1, the City plans to fund the OMP through four sources: AIP funds, Federally authorized PFCs, General Airport Revenue Bonds (GARBs), and third-party financing.

Figure 1. Total OMP Funding Streams
($ in Billions)



Before the City can break ground on any of the OMP's runway projects, FAA must, by law, complete a review of the environmental impacts of the OMP. For the environmental review, FAA will produce two documents, an EIS and a Record of Decision. The EIS discloses and evaluates both the positive and negative effects, such as those on noise and air quality, of a project with potentially significant effects on the environment. A Record of Decision is FAA's official decision to provide environmental approval for a project to go forward, taking into consideration its environmental effects and any alternatives. FAA released its draft EIS in January 2005, held public hearings on it in February 2005, and plans to release a final EIS in July 2005, which will be followed by the release of its Record of Decision in September 2005.

FINDINGS AND RECOMMENDATIONS

The OMP, with a 2001 estimated price tag of $6.6 billion, is one of the largest aviation infrastructure projects ever undertaken in the United States. It may be the most costly transportation project in the United States to date next to Boston's Central Artery/Ted Williams Tunnel project (the "Big Dig," which is estimated to cost $14.6 billion when completed but was first estimated at $2.6 billion). The City is projecting that approximately one-third of the OMP will be funded with FAA-approved PFCs and FAA-issued AIP grant funds. FAA will need to verify that the OMP's costs, schedule, and sources of funding are realistic, reasonable, and credible and that any known risks that could affect the cost and schedule of

the OMP are fully disclosed and considered. FAA must also implement the necessary airspace changes around O'Hare and outside the Chicago area to realize the capacity benefits (reduced delays and increased operations) of the airfield changes.

To Protect the Public's Investment in O'Hare, FAA Must Ensure That the OMP Financial Plan as Advertised Is Realistic, Reasonable, Credible, and Executable

Given the amount of taxpayer dollars at stake in the OMP, it is essential that FAA fulfill its statutory mandate to ensure, among other things, that the use of the PFC revenues is adequately justified. The Department has a statutory mandate to ensure that sufficient funding exists to complete a project before committing AIP discretionary funds to that project. Fulfilling these mandates will require FAA to proactively and aggressively analyze the reasonableness and validity of the OMP financial plan. We are making this point because FAA has the legal obligation to assure that the project costs not paid for with AIP grants or PFC revenue will in fact be covered by non-Federal funds (such as airport-issued bonds) before approving the LOI for Phase 1.

FAA needs to fully and thoroughly carry out its legal obligation for approving and authorizing PFC and AIP grants. Under the PFC statute, FAA is required to make several determinations before approving a PFC, including one that the proposed PFC will result in no more revenue than is necessary for financing the specific project.

In February 2003, FAA approved the City's application to use PFCs to fund a study on the environmental impacts of the OMP. At that time, FAA rendered a Final Agency Decision and approved a $4.50 PFC to be used only for the portion of the Runway Formulation Project application involving work leading to the completion of the EIS. In total, FAA approved more than $221 million in PFCs, half to be used for the environmental study and half for associated financing and interest costs. In July 2004, the United States Court of Appeals for the District of Columbia Circuit reversed FAA's approval of the City of Chicago's $221 million PFC application for the preparation of the EIS at O'Hare, concluding that FAA had not fulfilled its legal obligation to analyze the cost.

The Court stated that, "FAA cannot simply declare its 'expertise' [in estimating costs]; it must exercise that expertise and demonstrate sufficiently that it has done so." Given that there could be future legal challenges to FAA's decisions on the O'Hare modernization project, it is important for FAA to exercise due diligence in reviewing the City's request for an LOI, including the OMP financial plan, and any PFC applications the City submits to fund the OMP's design and construction

projects. The Court's decision underscores the need for FAA to take corrective action and exercise due diligence in reviewing the financial plan.

Our review has highlighted a number of areas FAA must pay particular attention to so it can carry out its legal responsibilities for reviewing the OMP financial plan. Some of these are straightforward and common to the analysis of financial plans on any large infrastructure project. Other items have implications specific to the OMP. FAA will need to identify the interrelationships between cost, schedule, and funding and to assess the potential cascading effects of changes in any single component. The FAA should consider not only the stability of the financial plan for Phase 1, but also the reasonableness of the overall OMP financial plan because the full benefits of the project are reached only upon completing both phases of the OMP.

Current OMP Costs Estimates Are a Baseline, Which Will Need To Be Adjusted Upward. The City's estimate of $6.6 billion for the entire OMP is in 2001 dollars. We have recently seen estimates for the OMP prepared by the City ranging from $7.1 billion to $8.0 billion when costs are stated in escalated dollars, (this excludes O'Hare's Capital Improvement Program estimated at $4.1 billion and the World Gateway Program estimated at $2.6 billion). Projections made in 2001 dollars are not likely to reflect the actual cost of the OMP, as the costs of labor and materials have increased since 2001, especially in the construction industry. For example, the cost of iron and steel has increased nearly 48 percent between 2001 and June 2005. These increases in cost are not reflected in the $6.6 billion estimate. This is a matter FAA should review, and the Agency should ensure the costs of the OMP are stated in escalated dollars and reflect any known or reasonably expected increases in construction costs.

Cost Estimates for Phase 2 Are Less Precise and More at Risk for Increases. In 2001, the City estimated that Phase 2 projects would cost $2.5 billion. The City does not plan to start final design for Phase 2 until 2006, with construction planned to begin in 2009. Planning-level cost estimates (which by definition are less precise than final design estimates) for Phase 2 have been completed, with the final design scheduled to begin in 2006 and be completed in 2011. Given that the estimate of $2.5 billion is in 2001 dollars and final design has not been completed, the final cost of Phase 2 will likely be higher. FAA will need to evaluate the risk to cost estimates due to changes in project scope, final engineering changes, labor and material cost increases, and other factors and then disclose their potential effect on the cost of the OMP.

OMP Phase 1 Schedule Delays Could Increase the Cost of the OMP. The City planned that FAA would approve the OMP by mid-2004 so that construction could begin on Phase 1 projects. The City had also planned for the first new runway under Phase 1 to be operational by the start of 2007, with all of Phase 1 completed

by the start of 2009. Although these plans have been delayed by more than a year (until at least September 2005, when FAA is expected to issue its Record of Decision), the City still expects to meet the original milestone schedule. We believe that the Phase 1 schedule, while aggressive, can still be met assuming that FAA issues the Record of Decision in September 2005 and that construction begins immediately thereafter. We based this on our analysis of recent runway projects at other airports and on the assumption that construction is not further delayed by lawsuits or injunctions.

Further delays in the OMP construction schedule could occur as a result of a court order or injunction from ongoing and possible future lawsuits filed by groups opposed to the OMP. For example, there are two cemeteries that the City plans to relocate to complete the OMP, and the owners are suing the City to prevent the removal of these cemeteries. Under court order, the City in July 2003 agreed not to acquire the cemeteries unless and until FAA issues its Record of Decision. The FAA anticipates additional lawsuits as the environmental review progresses. As such, FAA must ensure that the schedule is realistic and takes into account any known risks that could affect the Phase 1 and Phase 2 project milestones.

A Substantial Part of the OMP Funding Must Be Approved by Congress or FAA. The City is planning on receiving a sizable Federal investment for the OMP, with approximately $2 billion coming from FAA-approved PFCs ($1.45 billion), AIP entitlement funds ($66 million), and AIP discretionary grants ($528 million). The City is assuming that Congress will raise the PFC maximum charge from $4.50 per enplaned passenger to $6.00 by 2011. If the increase is not authorized, the City will be overstating its PFC collections by nearly $241 million for the 4-year period from 2011 through 2014.

The City is planning to receive an unprecedented $528 million in AIP discretionary grants to complete the OMP ($300 million for Phase 1 and $228 million for Phase 2). In addition, the City plans to request another $248 million in AIP discretionary grants to finance its Capital Improvement Program over the next 20 years. If all of the City's requests are granted, the AIP discretionary grants it receives for currently planned projects over the next 20 years would total $776 million.

According to FAA, $300 million is an unusually large request for AIP discretionary grants. As of September 2004, FAA had 30 LOIs with total payments of $917 million in discretionary grants spread over the next 11 years. By law, FAA can only use 50 percent of AIP discretionary funds for LOIs. This issue is particularly important given that FAA's budget request of $3 billion in AIP funding for FY 2006 is $472 million (15.7 percent) less than in FY 2005. Therefore, it is unlikely the City can receive $30 million each year for 10 years.

Furthermore, there will be competing interests for AIP discretionary grants in the near future as other airports begin planning large modernization programs. For example, as part of its $3 billion expansion program, Washington-Dulles International Airport requested $208 million in AIP discretionary grants for a new runway project in February 2005. In addition, the Los Angeles International Airport recently announced an $11 billion modernization plan, for which we understand the airport may request a significant AIP discretionary grant.

FAA Needs To Ensure the City Has Adequately Disclosed How It Plans To Cover Any Funding Shortfalls and That the Funds Are Not Otherwise Encumbered. If any shortfalls in funding or increases in project costs materialize, the City has indicated it plans to make up the funding/cost difference by issuing additional bonds. For example, if the City's request for the entire $300 million in AIP discretionary grants for Phase 1 is not approved, the City plans to issue additional bonds to cover the shortfall but only after approval by the Majority-In-Interest airlines. According to the City, an additional $300 million bond issuance would require debt service payments of approximately $24 million annually, payments that would ultimately be passed on to the airlines through increases in aircraft landing and terminal use fees. The airlines would in turn attempt to pass on these costs to the consumer.

FAA will need to consider the impact of any funding shortfall from AIP discretionary grants or PFCs and the corresponding effect of fee increases on the airlines' cost per enplaned passenger before making the appropriate disclosures. FAA must also ensure that the sources of funding are enough to handle the expected cash flow needed to pay for Phase 1 and Phase 2 projects and that the funds are not otherwise committed or encumbered currently or in the future for other programs in O'Hare's Master Plan.

Both Phase 1 and Phase 2 Must Be Completed To Get the Full Benefit of the OMP. The Majority-In-Interest airlines have agreed to the Phase 1 business plan. However, their final approval is contingent on the City receiving $300 million in AIP discretionary grants for the OMP. If the AIP funds are not granted, the City will have to renegotiate approval of Phase 1 with the airlines.

The Majority-In-Interest airlines are still in negotiations with the City for approval of Phase 2, including the funding sources. Majority-In-Interest rights allow dominant carriers to delay—or cancel—Phase 2 projects. Given the uncertain economic outlook of the airline industry, there is no guarantee that all of the projects planned for Phase 2 will be approved. If Phase 2 is not completed as planned, the full benefit of the OMP in reducing the average time of delay (down to an average of 5 minutes per flight by 2013) and increasing capacity (an average daily increase of 419 departures and arrivals combined) will not be realized.

The current cap on flight arrivals at O'Hare is set to expire in October 2005. FAA has proposed extending the cap on flight arrivals until 2008. According to FAA, the proposed extension to the cap on flight arrivals at O'Hare will gradually be relaxed as Phase 1 projects are completed and will be lifted entirely in 2008. However, if Phase 2 is not completed as planned, the lifting of the cap on flight arrivals may be short-lived because Phase 1 infrastructure improvements alone will not provide the necessary airfield capacity to handle the estimated 1.5 percent increase each year in flight operations forecasted by FAA. Accordingly, if Phase 2 is not completed, FAA may have to re-implement administrative controls that could again limit demand and inhibit competition at O'Hare.

Airspace Changes Must Be Implemented To Achieve and Sustain the Benefits of the OMP, but FAA Has Had Difficulty Making the Transition From Planning to Implementation

FAA and Mitre[6] analyses show that building new runways by themselves will have minimal impact on the congestion and delay problems at O'Hare. Airspace changes in and around the Chicago area are critical to relieving congestion at O'Hare and realizing the full benefits of the OMP, although the analysis has not been completed to finalize the costs and resource requirements in making these airspace changes.

Reductions in Delays and Increases in Capacity at O'Hare Depend on Both the OMP Airfield Changes and Airspace Redesign. FAA and the City used simulation modeling to assess operational delay and travel times associated with implementing all the necessary redesign plans. Figure 2 and Figure 3 show the difference between implementing the OMP and required airspace changes and doing nothing.

[6] The Mitre Corporation functions as FAA's Federally funded research and development center.

Figure 2. Average Minutes of Delay per Flight: With and Without OMP

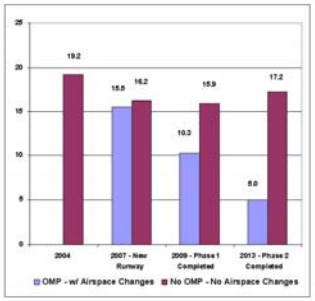
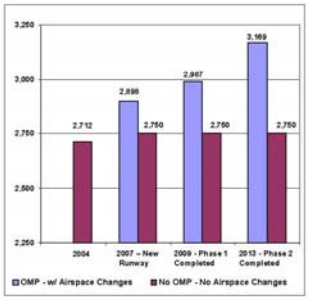


Figure 3. Average Daily Flight Operations: With and Without OMP



Source: Total Airspace and Airport Modeler for 2007 – 2013 data. FAA's Aviation System Performance Metrics and Air Traffic Activity Data System for 2004 data.
Note: 2004 figures include the effect of flight caps effective as of November 1, 2004.

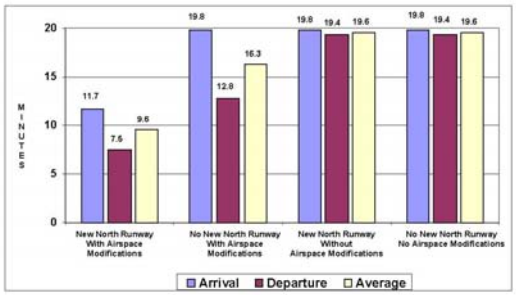
- The average forecasted delay per flight decreases from 15.9 minutes to 10.3 minutes at the completion of Phase 1 in 2009 and to 5.0 minutes at the completion of Phase 2 in 2013.

- The forecasted daily flight operations (arrivals and departures) increase from 2,750 to 2,987 in 2009 and to 3,169 in 2013 (peak month average daily flights).

To further demonstrate the need for both airfield and airspace changes, Mitre conducted a study that showed how increasing capacity and reducing delays at O'Hare depend on both the OMP airfield changes and airspace redesign in and around the airport. Mitre concluded that without the proposed first new runway, arrival delays will continue to be excessive; and without the proposed airspace changes, the benefits of the proposed first new runway will be very limited.

As shown in Figure 4, in 2007 the greatest reduction in delays occurs with the Phase 1 new north runway operational and the associated airspace redesign completed.

Figure 4. Average Minutes of Delay: New North Runway Versus No Action Option With and Without Airspace Changes, 2007



Source: FAA's presentation of data from the Mitre Corporation

- A combination of airfield and airspace changes provides for more than a 50 percent reduction in the average minutes of delay per flight from 19.6 to 9.6 minutes.[7]

- Airspace changes alone provide little relief in the average minutes of delay per flight—16.3 minutes—when compared to "do nothing" at an average delay of 19.6 minutes per flight.

- Runway changes alone provide no relief in the average minutes of delay per flight—19.6 minutes—when compared to "do nothing," also at an average delay of 19.6 minutes per flight.

FAA has completed the majority of planning for the airspace redesign necessary to accommodate Phase 1. FAA has identified the airspace changes needed in the Chicago Air Route Traffic Control Center and the Chicago Terminal Radar Approach Control facility airspace from 10 to 200 miles out from O'Hare. FAA plans to add four new sectors,[8] four new routes, and the accompanying air traffic control procedures. FAA has also identified the equipment and resources needed to support these airspace changes—the key now is moving from planning to

[7] Mitre's delay minutes are slightly different from FAA's delay minutes in Figure 2 because Mitre used more limited operational conditions in its model. Mitre's calculations of delay are based on: (1) flights occurring in good weather conditions with only two to three heavily used runway operating configurations versus the five primary runway configurations used by FAA, and (2) daytime-only flight schedules versus full-day flight schedules used by FAA.

[8] FAA divides airspace into sections called "sectors." Air traffic controllers are assigned certain sectors of airspace in which to monitor planes.

implementation, with implementation being the vulnerable point in FAA's efforts to redesign airspace. To achieve maximum operational benefits, airspace changes are needed in other en route facilities in other cities, specifically Cleveland, Indianapolis, and Minneapolis. These efforts are being pursued under a separate initiative known as National Airspace Redesign. FAA has not yet finalized the cost and resource requirements for making these airspace changes.

FAA's Airspace Redesign Efforts Often Face Significant Delays When Making the Transition From Planning to Implementation. A strong, direct, and unambiguous link connects the benefits of the airfield investments to the redesign of airspace at O'Hare and surrounding areas. Our work on FAA's National Airspace Redesign efforts shows FAA has significant problems in making the transition from planning to implementation. It is important that these problems do not recur at O'Hare. If FAA's airspace changes are not implemented in synchrony with the OMP airfield changes, the benefits of investing in the OMP will be greatly overstated. Specifically, our work found that:

- Cost and schedules for the vast majority of airspace projects are not reliable because they do not clearly identify what is needed to shift a project from the design phase to implementation. FAA could not—nor could we—determine the cost in FY 2004 of implementing 42 active projects we reviewed.

- Projects have been delayed 3 years or more because of changes in scope, environmental issues, or problems in developing new procedures for more precise arrival and departure routes. For example, the San Francisco Bay to Los Angeles Basin Redesign project (focused on high-altitude routes in the region and navigating airspace managed jointly by FAA and the Department of Defense) slipped from a 2003 target date to 2008 due to problems developing new procedures, problems acquiring equipment, and changes to project scope.

- Project efforts are not effectively coordinated among FAA stakeholders or linked to FAA's budget process. Coordination is ineffective between the designers of the airspace and the implementers of the changes. For example, 19 of the 42 approved projects in FY 2004 had unresolved resource or equipment issues.

The establishment of the Chicago Area Modernization Program Office to coordinate Agency efforts is an important step. However, airspace changes also need to be made *outside of Chicago airspace* (over 300 miles east and over 400 miles northwest) to sustain expected downstream capacity increases and reductions in delays. These changes are critical and need to be in place by 2013.

Implementing the Airspace Changes To Accommodate the OMP Is a Complex Effort That Has Significant, Yet Not Fully Defined, Resource Implications for FAA. To get the benefits of Phase 1 and reduce the average minutes of delays per flight by almost 50 percent, FAA *must modify* the airspace in the Great Lakes region, including airspace around Chicago; South Bend, Indiana; and Milwaukee, Wisconsin. To do so, FAA needs to add four new sectors and four new departure routes, acquire additional radio frequencies, purchase and deploy radar and communication equipment, and train air traffic controllers assigned to the new sectors. Although FAA has identified the necessary costs and resources for the airspace changes needed to accommodate Phase 1, the key now is moving from planning to implementation.

Also, to implement the Phase 1 airspace redesign, the Chicago Air Route Traffic Control Center will divest some current airspace to Terminal Radar Approach Control facilities in South Bend and Milwaukee. According to FAA, additional internal adjustments of the Chicago Air Route Traffic Control Center's airspace are also required. Although such airspace exchanges are relatively straightforward from a conceptual perspective, FAA has had difficulty managing them in the past.

To ensure that proposed airspace changes move forward, the Chicago Area Modernization Program office needs to finalize and submit to FAA's Air Traffic Organization its proposal for approval and funding the airspace changes needed to support the Phase 1 projects. In turn, the Air Traffic Organization needs to approve the proposal and commit to the necessary funding levels for the Phase 1 airspace redesign changes. Once approved, airspace design activities need to be prioritized and key milestones and target completions dates established so that they coincide with the OMP runway project milestones and target completion dates.

To get all the associated benefits from the OMP as currently envisioned, FAA also needs to complete the OMP airspace redesign for the Chicago area by *adding sectors* to O'Hare airspace. As many as five additional sectors need to be established to the west and north of O'Hare by 2013. Maximizing the full benefits of the OMP will reduce arrival and departure delays to an average of 5 minutes per flight, while at the same time increasing daily arrivals and departures by an average of 15 percent (or an average daily total of 419 arrivals and departures combined).

The exact extent of the airspace redesign may ultimately change from the current plan of five new sectors due to advancements in technology or other factors affecting management of airspace. The work to date on this effort is still in the conceptual stage, and FAA needs to conduct technical analyses to determine the feasibility of implementing this airspace redesign in terms of the availability of frequencies, staff, and equipment.

We note that a number of airspace changes need to be made outside of Chicago airspace that are important to sustain the expected benefits of the OMP. When new departure routes are added to O'Hare, the airspace around Cleveland and Indianapolis will have to be modified to allow these Air Route Traffic Control Centers to accept increased departures from O'Hare. These efforts are outside the scope of the Chicago Area Modernization Program Office. According to Mitre, proposed sector and routing changes in the Cleveland and Indianapolis Centers will sustain the benefits of the Chicago area redesign projects. FAA plans to add two new sectors to the Cleveland Center and three new sectors to the Indianapolis Center.

FAA has not yet finalized the costs and resource requirements for making these airspace changes. FAA needs to identify the resources that will support the airspace changes (i.e., additional radio frequencies, communication equipment, and staffing levels).

RECOMMENDATIONS

Prior to approving the City's request for $640 million in PFCs and $300 million in AIP discretionary grants for Phase 1 or any PFC or AIP grants for Phase 2, the Federal Aviation Administrator needs to ensure that the public's investment in the project is protected by reviewing the OMP financial plan and determining that:

1. The benefits and costs represented in OMP Phase 1 and Phase 2 are fully disclosed and considered and that the costs are realistic, reasonable, credible, executable, and stated in escalated dollars reflecting any projected increase in the cost of labor and materials.

2. The schedule is realistic and takes into account any known risks that could affect Phase 1 and Phase 2 project costs and milestones.

3. Funding sources—AIP, PFC, third-party financing, and bonds—are fully disclosed, can handle the expected cash flow needed to pay for Phase 1 and Phase 2 projects, and are not otherwise committed or encumbered for the O'Hare Capital Improvement Program or World Gateway Program.

FAA also needs to develop an overall airspace redesign implementation plan, with incremental phasing of the proposed changes that is carefully synchronized with the proposed OMP airfield changes. Specifically, the Federal Aviation Administrator needs to:

4. Appoint one senior official with overall responsibility for airspace redesign who can direct the planning, resources, budget, schedule, and implementation of airspace changes necessary to support the OMP.

5. Develop a schedule that synchronizes implementation of airspace changes with airfield changes and send to Congress a budget linked to this schedule that identifies the timing and cost of all the necessary equipment and other resources needed to complete the OMP airspace changes, including the airspace changes outside the Chicago area that further enhance the OMP.

6. Prioritize its airspace changes with the OMP airfield improvements and sequence them in an order that maximizes the benefits from the airfield projects.

AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE

We sent a draft copy of this report to FAA on April 29, 2005. On May 20, 2005, FAA provided us with its formal written response. On May 26, 2005, we met with the Deputy Associate Administrator for Airports and other Agency officials to discuss FAA's comments and response to our recommendations. After this meeting, FAA provided us with additional comments clarifying its actions taken or planned to address our recommendations.

While FAA disagreed with some conclusions in the report, the Agency agreed with our recommendations and if FAA conducts its planned actions in the manner it has stated in its written comments, its actions will be responsive to our recommendations. In light of the importance of the actions FAA must take to ensure the success of the OMP, we intend to review FAA's and its consultant's actions from time to time. FAA's full response can be found in the Appendix. FAA's response to the draft report recommendations is summarized below.

Recommendations 1, 2, and 3. In order to accomplish the recommended analysis, FAA will hire an airport financing consultant to help analyze the benefits and costs, schedule, and proposed financing for both phases of the OMP. This analysis will include four tasks: (1) establishing the current financial situation at O'Hare, (2) analyzing financial impacts under the proposed OMP Phase 1, (3) analyzing financial impacts under the full OMP, and (4) reviewing the benefit-cost analysis. The analysis of financial impacts will include a sensitivity analysis examining the impact of delays in construction schedules, cost increases, and deviations from the City's requested LOI amount or payment schedule. Should the OMP ultimately be approved by the FAA in its Record of Decision, FAA expects to reach a decision on the LOI for OMP Phase 1 shortly after completion of the Record of Decision planned for September 2005. FAA stated that it plans to document its findings about the recommendations at that time.

We would like to point out the importance of doing this review in terms of FAA's due diligence to ensure the OMP's costs, schedule, and sources of funding are realistic, reasonable, and credible. The City's estimate of $6.6 billion (2001 dollars) is not likely to be the final cost of the OMP due to increases in construction costs since 2001, potential schedule changes, and less precision in Phase 2 costs compared to Phase 1 costs. Also, FAA has been admonished by a Federal court for its financial review in the past. In 2004, the United States Court of Appeals for the District of Columbia Circuit reversed FAA's approval of the City of Chicago's $221 million PFC application for O'Hare, concluding that FAA had not fulfilled its legal obligation to analyze the cost.

Recommendations 4, 5, and 6. FAA stated that development of an airspace redesign implementation plan to address the recommendation is underway. Also, FAA stated it will designate a focal point within the FAA Air Traffic Organization to coordinate the execution and timing of planned airspace changes associated with OMP implementation. To fully meet the intent of our recommendation, we believe FAA needs to appoint an official to oversee the airspace redesign with the proper responsibility and authority to decide what needs to be done and when it needs to be done and then direct FAA units to do it. We recognize that this may require someone who can cut across bureaucratic lines, has authority over the entire project, and can speak directly to the Administrator or Deputy Administrator of FAA.

FAA provided additional responses to our recommendations in a document that was attached to its May 20, 2005 written comments containing its suggested text changes to the draft report. Due to the length of the document, it is not included in this report. We did incorporate FAA's text changes as deemed necessary. In the document, FAA stated that it is currently developing a detailed schedule to ensure that airspace redesign efforts are timed, budgeted, and funded in synchrony with the City's OMP construction schedule. Also, FAA stated that costs associated with airspace changes beyond Chicago are being developed in concert with the OMP requirements. In addition, FAA stated that the necessary airspace changes have been prioritized to provide the most benefit to the phased OMP airfield construction.

While these actions are responsive to our recommendations, we are requesting that FAA provide us with: (1) an estimated target date for developing an airspace redesign implementation plan, (2) an estimated target for when an official will be appointed to oversee airspace redesign implementation for the OMP and what level of authority and responsibility the official will be given in the organization, (3) an estimated target date for when the airspace changes schedule and associated budget will be finalized, and (4) support that the airspace changes have been prioritized to provide the most benefit to the phased OMP airfield construction.

In addition to its response on our report recommendations, FAA also made general comments about its view of our report conclusions. FAA stated it disagreed with the (1) comparative reference of the OMP proposal to the Big Dig; (2) characterization of the City's AIP funding request for the OMP as "unprecedented"; and (3) assertion that FAA does not have an adequate process for assessment of cost, schedule, and sources of funding for airport development projects.

- Comparative Reference of the OMP Proposal to the Big Dig. As FAA stated in its comments, "FAA does not agree with the implication that the OMP proposal (and FAA's role in regard to the proposal) is analogous to the 'Big Dig' " and further requested that the reference to the Big Dig be deleted from the report. Our reference to the Big Dig is to illustrate that the OMP, like the Big Dig, is a large transportation infrastructure project that will have a substantial public investment that FAA must protect through an increased level of oversight of project costs and schedule. We also point out that the OMP is one of the first projects of its kind for an existing airport in terms of cost, magnitude, and complexity and that the $6.6 billion price tag that is being advertised today is not likely to be the actual cost of the OMP. Therefore, FAA's role in regards to the OMP should be to provide a higher level of scrutiny over the project's costs, schedule, and sources of funding.

- Characterization of the City's AIP Funding Request for the OMP Is "unprecedented." In our report, we stated that the City is requesting an unprecedented amount of AIP discretionary funds for Phase 1—$300 million or $30 million each year for 10 years. The City is requesting this $300 million from FAA through a single LOI. In its comments, FAA indicated that while $300 million in discretionary funds is large, it is not out of line with AIP funding commitments made to other large airport development projects (e.g., Detroit, Denver, and St. Louis). Only Denver has received over $300 million in AIP discretionary funding, and this was to build the new Denver airport. FAA provided $340 million in discretionary AIP funding for the construction of multiple runways at a new airport in Denver. However, the $340 million was not a single LOI. The $340 million consisted of a $250 million LOI in discretionary funding and about $90 million in pre-LOI AIP discretionary funds. Thus, we are not aware of, nor did FAA provide support for (see Attachment 2 to FAA's June 15, 2005 written comments in the Appendix in this report), any other single airport sponsor's LOI request or planned LOI request for a single grant of $300 million in AIP discretionary funds for an existing airport. We are also not aware of any single airport sponsor's multiple LOI requests for more than $528 million in AIP discretionary funds, which represents the City's total planned LOI requests for AIP discretionary funds for

Phase 1 and Phase 2. Therefore, we continue to believe the City's LOI request is unprecedented.

- Assertion That FAA Does Not Have an Adequate Process for Assessment of Cost, Schedule, and Sources of Funding for Airport Development Projects. In its comments, FAA disagrees with the implication that it is not exercising due diligence in analysis of the reasonableness and credibility of project costs and sources of funding. In our draft report, we identified the need for increased oversight of the OMP given the size and scope of the project and the potential for cost or schedule overruns. In its comments to our draft report, FAA provided us with additional information on this issue, including its use of private sector financial consultants to review large and complex airport development projects in the past and its plan to use a financial consultant to review the benefits and costs of the OMP. FAA's plan to conduct a financial review of the OMP with a financial consultant appears to be adequate if the reviews are conducted as stated in its written comments.

ACTIONS REQUIRED

In accordance with Department of Transportation Order 8000.1C, we would appreciate receiving target dates for planned actions to be taken for Recommendations 4 and 5 and evidence of actions taken for Recommendation 6 within 30 calendar days. You may provide alternative courses of action that you believe would resolve the issues presented in this report.

We appreciate the courtesies and cooperation of FAA representatives during this review. If you have any questions concerning this report, please call me at (202) 366-1959 or David A. Dobbs, Assistant Inspector General for Aviation and Special Program Audits, at (202) 366-0500.

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cc: The Secretary
Deputy Secretary
Chief of Staff
FAA Deputy Administrator
FAA Chief of Staff
Anthony Williams, ABU-100
Martin Gertel, M-1

EXHIBIT A. SCOPE AND METHODOLOGY

The audit was conducted from March 2004 to April 2005. We conducted our review in accordance with Generally Accepted Government Auditing Standards prescribed by the Comptroller General of the United States.

We initiated our review in response to the request from Representative Henry J. Hyde and former Senator Peter G. Fitzgerald to examine FAA's process for reviewing and approving the City's OMP. In their request, Representative Hyde and Senator Fitzgerald expressed concerns about (a) whether FAA's process for reviewing the OMP was fair, open, and transparent to all interested parties; (b) the financial viability of the OMP; (c) technical issues involving the airspace around O'Hare; and (d) whether specific guidelines were being met for system and master planning at O'Hare.

On June 16, 2004, we met with Senator Fitzgerald and his staff and agreed to focus our review on the status of FAA's work on the OMP EIS; FAA's process for verifying the reasonableness and credibility of the OMP costs, schedule and sources of funding; and FAA's actions taken and needed for completing substantial changes to the airspace to accommodate the OMP.

We did not assess the EIS process during this review, since there is a well-established Federal environmental review process that involves the collaboration and coordination of several Federal agencies, state and local authorities, and public-interest groups representing communities surrounding O'Hare.

To obtain information on all aspects of FAA's involvement with the system and master planning at O'Hare, we held extensive discussions with officials at FAA's Chicago Area Modernization Program Office, the office responsible for overseeing FAA's role in the O'Hare Modernization Program. Over the course of our review, we met on several occasions with FAA's staff responsible for (1) conducting the environmental review of the OMP, (2) reviewing O'Hare's Master Plan and Airport Layout Plan, (3) overseeing the work on the Total Airport and Airspace Modeler (TAAM) computer model, and (4) budgeting and managing airspace redesign for O'Hare. We also reviewed the City's Airport Layout Plan, Master Plan, and airspace redesign budget and plans and viewed computer simulation modeling of the TAAM for the OMP. We also met with the FAA Great Lakes Regional Administrator and officials from the region's Airports Division and Flight Procedures Office. We toured the airport to view where proposed OMP development would take place. We also visited the surrounding neighborhoods to view the land the City plans to acquire to support the OMP.

In reviewing the financial viability of the OMP, we held extensive discussions with City officials, including the Executive Director and key staff of the O'Hare Modernization Program and the City's OMP consultant. We reviewed O'Hare's Master Plan, financial statements for the years ended December 31, 2002 and 2003, the OMP Financial Plan as submitted in the City's Request for a LOI for AIP discretionary funds, supplemental documentation provided by the City in support of the LOI, and GARB prospectuses. We also met with the staff from FAA's Airports Financial Assistance Division and the Financial Analysis and Passenger Facility Charge Branch. We reviewed relevant laws and regulations related to PFC and AIP funding for airport development.

To understand the technical issues involving airspace changes in and around O'Hare, we met with officials in the Air Traffic Organization, including the Vice President of Transition, the Director of System Operations and Safety, the Director of Spectrum Management, and key staff. We also met with FAA officials in the Chicago Air Traffic Route Control Center, the Chicago Terminal Radar Approach Control facility, and the O'Hare Control Tower. We reviewed FAA's airspace redesign plans, including the *FAA Flight Plan*, the *Operational Evolution Plan*, and the *Great Lakes Region National Airspace Redesign Integrated Design Plan*. We also reviewed the results of the TAAM computer model for the OMP and additional documentation provided by Mitre regarding airspace changes necessary to support the OMP. We did not assess the validity of the information in the City's, FAA's, and Mitre's computer modeling for the airspace redesign, including the TAAM.

We also met with the mayors of surrounding communities, groups opposed to the OMP, law firms representing persons opposed to the OMP, and representatives of businesses in favor of the OMP.

Exhibit A. Scope and Methodology

EXHIBIT B. PROGRAM COMPONENTS OF O'HARE'S MASTER PLAN

O'Hare's Master Plan outlines projects and funding sources over the next 20 years that will allow the airport to meet future demand. The Plan represents all that *could* be built at O'Hare and not what *must* be built. The Plan gives the airport and the airlines flexibility to determine which projects move forward and when, based on market demand and the approval of the airlines servicing O'Hare.

The Airport Capital Improvement Programs funds are essentially repair and replacement programs, usually consisting of short-term (5-year) maintenance improvements and long-term maintenance improvements. Resurfacing an existing runway is an example of a maintenance improvement under the Capital Improvement Program. O'Hare's Capital Improvement Program, estimated to cost more than $4 billon projected over 20 years, will be implemented with or without the World Gateway Program and the O'Hare Modernization Program or any other future airport development project. O'Hare's annual operation and maintenance expenditures, such as snow removal and regularly scheduled escalator and elevator maintenance, are not part of O'Hare's Capital Improvement Program.

The World Gateway Program, estimated to cost more than $2.6 billion in 1999 dollars, would allow the airport to build additional gate capacity through construction of two new terminals—Terminal 6 and Terminal 4. To accommodate traffic at the new terminals, Concourse K will be extended, new taxiways will be constructed, and existing taxiways will be reconfigured. Terminal 6 will have space for 18 aircraft, and Terminal 4 for 13. In December 2000, the City began work on the development of the Program, but work was suspended in September 2002 because of changes in the industry and economy. Market demand will guide the World Gateway Program's future development.

Exhibit B. Program Components of O'Hare's Master Plan

EXHIBIT C. OMP FUNDING STREAMS AND APPROVAL PROCESS

The City plans to fund the OMP through five sources as are shown here:

General Airport Revenue Bonds (59 percent)	Passenger Facility Charges (22 percent)	Third-Party Financing (10 percent)	AIP Discretionary Funds (8 percent)	AIP Entitlement Funds (1 percent)
$3.894 Billion	$1.452 Billion	$660 Million	$528 Million	$66 Million

Financing includes GARBs, PFCs, third-party financing, and AIP entitlement and discretionary funds.

- GARBs are bonds backed by the revenues generated by the airport, such as airline rates and charges. The City must get approval from O'Hare's Majority-In-Interest airlines to issue GARBs.
- PFCs are imposed on air travelers to help finance eligible airport-related projects, such as new runways. An airport sponsor can collect a PFC of up to $4.50 per passenger flight segment with an $18 limit on a round-trip ticket.

  The City must consult with the airlines servicing O'Hare when requesting a PFC and must get approval and authorization from FAA to collect and use PFCs. Only Congress can authorize an increase in PFCs above the current $4.50 per passenger flight segment.
- Under third-party financing, the debt service on bonds issued to pay for the western terminal facility proposed in the OMP would be paid by revenues generated by the terminal. The City must get approval from O'Hare's Majority-In-Interest airlines to seek third-party financing for the western terminal facility if it affects the airlines' rates and charges.
- AIP entitlement funds are allocated to primary airports, cargo service airports, and states based on statutory provisions and are calculated using specific formulas. AIP discretionary funds are the funds that remain after entitlements are allocated. FAA approves and authorizes the use of AIP discretionary funds.

U.S. Department of Transportation
Federal Aviation Administration

Memorandum

Subject: **INFORMATION**: FAA's Response to the Office of Inspector General's Draft Report: Chicago's O'Hare Modernization

Date: MAY 20 2005

From: Assistant Administrator for Financial Services and Chief Financial Officer

Reply to Attn. of:

To: Assistant Inspector General for Aviation and Special Programs Audits

This memorandum is provided in response to the subject report. The FAA has reviewed the draft OIG document. The paragraphs below contain an overview of some substantive issues addressed in our comments, as well as a synopsis of our response specifically regarding the recommendations contained in the draft report. Additionally, we have attached an edited copy of the draft report that conveys, in detail, all FAA comments and suggested changes to the text of the report.

In general, we concur with the recommendations outlined in the draft report (see below). However, we believe that there are some substantive issues that must be highlighted and resolved in order to ensure the information contained in the report is accurate and to clarify the scope of the report's recommendations. The following paragraphs summarize some of the key issues that the FAA believes warrant further discussion.

Comparative reference of the O'Hare Modernization Program (OMP) proposal to Boston's Central Artery/Ted Williams Tunnel project (also known as the "Big Dig" project): The OIG draws a comparison in its draft report between the OMP proposal and the "Big Dig." The FAA does not agree with the implication that the OMP proposal (and FAA's role in regard to the proposal) is analogous to the "Big Dig." First, the FAA's share of Phase 1 of the overall OMP would be less than percent of the projected Phase 1 project cost, with the vast majority of the project cost and risk to be borne by the local airport sponsor and private investors (via general airport revenue bonds). The Federal share of the "Big Dig" project was significantly higher. Secondly, the OMP proposes a phased project implementation, with each phase producing independent benefits. The "Big Dig" could not be separated into discrete phases with associated independent benefits. Lastly, as complex as the OMP proposal may be, it still represents essentially a surface paving and reconfiguration project. As such, it is far simpler and less uncertain than the "Big Dig," which involved tunneling underwater and constructing bridge structures in water. The FAA suggests that the comparative reference of the OMP proposal to the "Big Dig" project be taken out of the draft OIG report.

Characterization of the City of Chicago's Airport Improvement Program (AIP) funding request for the OMP as "unprecedented": The FAA considers this representation to be inaccurate for the following reasons. First, while the AIP Letter of Intent (LOI) request from the airport sponsor for $300 million in discretionary funds is large, it is not out of line with AIP funding commitments made toward other large airport development projects (Detroit, Denver, and St. Louis being examples). Secondly, when considered on a "per runway" basis, the OMP Phase 1 proposal, and the $300 million LOI request, is on a par with the FAA's normal planning target of $100 million discretionary dollars per runway for LOIs at large hub airports. Specifically, on a per runway basis, the OMP proposal and associated LOI request ranks below such locations as Seattle, St. Louis, and Atlanta. Third, on a percentage basis, the requested FAA participation in funding the OMP proposal (approximately 10 percent of the project cost) is among the lowest of any LOI request for runways at large hub airports.

Assertion that FAA does not have an adequate process for assessment of cost, schedule, and sources of funding for airport development projects: The FAA disagrees with the implication in the OIG report that the Agency is not exercising due diligence in analysis of the reasonableness and credibility of project costs, funding sources, etc. The LOI process includes a requirement for airport sponsors to submit a project financing template and analysis of alternate payment streams. These submissions are reviewed by FAA staff and determinations are made by the Agency concerning reasonableness of project costs and financial feasibility. Additionally, for larger, more complex projects and LOI requests, the FAA obtains assistance in its analysis from outside (private sector) airport finance experts. The OIG report suggests that it is time for the FAA to "raise the standard" regarding its review of LOI requests for large airport development proposals. In fact, the FAA believes it has done just that on relatively recent large projects such as Seattle and St. Louis. The FAA agrees that the OMP deserves additional scrutiny and is applying that higher level of diligence to the OMP proposal and its associated LOI request. In summary, the FAA believes that the level of scrutiny applied to analysis of project cost and funding plans by FAA staff (and, when warranted, outside experts supporting FAA's work) is adequate to assure appropriate LOI program management, proper utilization of AIP discretionary dollars, and compliance with all statutory requirements applicable to the FAA's management of allocated AIP funds.

Differentiation between FAA's statutory responsibilities regarding assessment of costs and benefits for OMP Phase 1 vs. OMP Phase 2: The AIP funding statute governing LOIs requires the FAA to assess the benefits and costs of the project proposed for LOI funding and to evaluate the system impacts of the project proposed for LOI funding (49 USC 47110(e)(2)(C); 49 USC 47115(d)(1).(2)). In addition, the statutory requirement for a determination that the sponsor has sufficient funds to finance the non-Federal share of a project is limited to the specific project for which funding is sought (49 USC 47106(a)(3)). Since the City of Chicago is seeking AIP funding at this time for only Phase 1 in its pending LOI application submitted to FAA, the law requires that FAA make the benefit-cost evaluation and system capacity determinations for Phase 1 on a stand-alone basis. In addition, the costs and benefits of OMP Phase 2 are, at this time, less defined than the costs and benefits associated with Phase 1. For these reasons, the FAA does not intend to evaluate the benefits or costs of Phase 2 to the same

level of detail as will be done for Phase 1. The analysis of Phase 2 benefits, costs, and financial feasibility in the level of detail required by the AIP funding statute, to support a commitment of AIP funds, will be made by FAA when the City of Chicago makes application for LOI funding for Phase 2.

As stated above, a complete and detailed presentation of the FAA's comments and suggested changes regarding the draft OIG report is contained in the attached copy of the draft report.

Concerning the specific recommendations contained in the draft OIG report, the FAA offers the following:

Recommendation concerning the need for FAA to ensure that the public's investment in the project is protected by reviewing the OMP financial plan and determining that:

1. ***The benefits and costs for OMP Phase 1 and Phase 2 are fully disclosed, considered, and determined to be reasonable.***
2. ***The schedule is realistic and considers known risks.***
3. ***Funding sources are fully disclosed and can be expected to pay for OMP Phase 1 and Phase 2.***

FAA Response: The FAA agrees with this recommendation for OMP Phase 1 and, to the extent that benefits, cost, schedule, and financing can be analyzed at this point in time for Phase 2, the FAA will assess Phase 2 within the context of a sensitivity analysis covering a range of reasonable assumptions.

Recommendation that FAA needs to develop an overall airspace redesign implementation plan that is synchronized with the proposed OMP airfield changes, specifically including:

4. ***Appointment of one senior official with overall responsibility for management of airspace redesign.***
5. ***Development of an implementation schedule that synchronizes airspace changes with anticipated airfield changes.***
6. ***Prioritization of airspace changes to maximize operational benefits as the OMP is implemented.***

FAA Response: The FAA agrees with this recommendation. Development of an implementation plan to address the recommendation is well underway, and designation of a focal point within FAA's Air Traffic Organization, to coordinate the execution and timing of planned airspace changes associated with OMP implementation, will be undertaken.

The FAA appreciates the opportunity to comment on the OIG's draft report before a final report is developed. FAA representatives are available to discuss the comments and

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suggested changes to the draft report that are contained in this memorandum and its attachment. Should you have comments or need additional information, please contact Mr. Barry Cooper, Manager, Chicago Area Modernization Program Office, at 847-294-7812.

Ramesh K. Punwani

Attachment

Appendix. Agency Comments

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U.S. Department of Transportation
Federal Aviation Administration

Memorandum

Subject: **INFORMATION:** Additional Information form FAA in Regard to the OIG's Draft Report: Chicago's O' Hare Modernization Program

Date: JUN 15 2005

From: Assistant Administrator for Financial Services and Chief Financial Officer

Reply to Attn. of:

To: Assistant Inspector General for Aviation and Special Programs Audits

On May 20, the FAA submitted to your office its comments on the subject draft report. Following your office's review of those comments, further discussions between FAA and the OIG took place during the week of May 23. On June 2, as a result of those further discussions, FAA forwarded to you, via e-mail, additional information including some suggested revised wording for various paragraphs contained in the draft report. A representative of the OIG subsequently contacted FAA on June 8, requesting that the information submitted to you by FAA via e-mail on June 2, be formally transmitted to you in memorandum form. The purpose of this memorandum is to formally retransmit FAA's June 2 comments regarding the draft OIG report.

Accordingly, please find attached FAA's additional input on the draft OIG report. Attachment 1 contains suggested verbiage for inclusion in the final report. Attachments 2 and 3 contain spreadsheets that provide information concerning Federal funding commitments to other recent new runway projects.

Should you have questions concerning the attached information, please contact Mr. Anthony Williams, Budget Policy Division, at 202-267-9000.

Ramesh K. Punwani

Attachments

Appendix. Agency Comments

June 10, 2005

ATTACHMENT 1

FAA RESPONSES TO SPECIFIC COMPONENTS OF DRAFT OIG REPORT, "CHICAGO'S O'HARE MODERNIZATION PROGRAM" PROJECT NO. 04B3006B000

Page 5 of draft OIG report, second paragraph (middle of page), regarding the Federal court remand of FAA's PFC decision. FAA offers the following alternative verbiage:

FAA needs to fulfill its legal obligation for approving and authorizing PFC and AIP grants. The PFC statute requires the FAA to make several findings before approving a PFC, including a finding that the proposed PFC will result in revenue that is not more than is necessary for financing the specific project. The AIP statute has similar requirements, including one that project costs be reasonable in amount in order for them to be allowable. In a 2004 ruling, the United States Court of Appeals for the District of Columbia Circuit[9] reviewed a prior PFC decision to fund the O'Hare OMP EIS, and concluded that the administrative record did not demonstrate that the FAA had fulfilled its legal obligation to analyze the costs proposed to be financed with PFCs. Considering the controversy surrounding this project and the likelihood of further litigation, it is essential for the FAA to exercise due diligence in reviewing the City's LOI, including the OMP financial plan, and any PFC applications the City submits to fund the OMP's design and construction projects, and to assure that the City provides sufficient documentation to support any statutory required findings by FAA.

Pages 18 and 19 of draft OIG report, in response to Recommendations 1, 2, and 3, FAA offers the following verbiage:

The FAA agrees with these recommendations for Phase 1 and to a limited extent for Phase 2. Since the City is seeking AIP funding for only Phase 1 in the pending LOI application, the law requires that we make the BCA evaluations and system capacity determinations for Phase 1 on a stand-alone basis. The AIP funding statute governing LOIs requires the FAA to assess the benefits and costs of the project proposed for LOI funding and to evaluate the system impacts of the project proposed for LOI funding (49 USC 47110(e)(2)(C); 47115(d)(1),(2)). In addition the statutory requirement for a determination that the sponsor has sufficient funds to finance the non-Federal share of a project is limited to the specific project for which funding is sought (49 USC 47106(a)(3)). , As discussed in our comments on other portions of the draft, timing, costs and benefits of phase 2 are more uncertain at this time. For these reasons, FAA does not plan on evaluating the benefits or costs of Phase 2 in the same level of detail as we use for Phase 1. The analysis of Phase 2 benefits, costs and financial feasibility in the level

[9] *Village of Bensensville v. FAA*, 376 F.3d 1114 (D.C. Cir. 2004).

of detail required by the AIP funding statute to support a commitment of AIP funds will be made when and if the City applies for LOI funding for Phase 2.

In order to accomplish the recommended analysis, the FAA will hire an airport financing consultant to help analyze the benefits and costs, schedule, and proposed financing for both phases of the OMP. This analysis will include four tasks including: establishing the current financial situation at O'Hare; analyzing financial impacts under the proposed OMP – Phase 1; analyzing financial impacts under the full OMP; and a review of the benefit cost analysis. The analysis of financial impacts will include a sensitivity analysis examining the impact of the following: delays in construction schedules; cost increases; and deviations from the City's requested LOI amount or payment schedule. In this context, should the OMP ultimately be approved by the FAA via an Environmental Impact Statement Record of Decision (EIS ROD), FAA expects to reach a decision on the LOI for the Phase 1 OMP shortly after completion of the EIS ROD. The FAA expects to document its findings in regard to the recommendations at that time.