

**Future of Aviation Advisory Committee  
Record of Meeting**

*May 25, 2010*

United States Department of Transportation  
Washington, DC

**Public Announcement**

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The U.S. Department of Transportation (DOT), Office of the Secretary of Transportation, told the public of this Future of Aviation Advisory Committee meeting in a Federal Register notice published May 11, 2010 (75 FR 26317).

**Committee Members in Attendance**

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<b>Name</b>	<b>Title</b>	<b>Affiliation(s)</b>
Susan Kurland <i>(Committee Chair)</i>	Assistant Secretary for Aviation and International Affairs	DOT
Juan J. Alonso	Associate professor, Department of Aeronautics and Astronautics	Stanford University
Susan M. Baer	Director, Aviation Department	Port Authority of New York & New Jersey (PANY/NJ)
David Barger	President and Chief Executive Officer	JetBlue Airways Corporation (JetBlue)
Bryan K. Bedford	Chairman, President and Chief Executive Officer	Republic Airways Holdings, Inc. (Republic Airways)
Severin Borenstein	Professor, Haas School of Business	University of California, Berkeley (Haas School of Business)
Thella F. Bowens	President and Chief Executive Officer	San Diego County Regional Airport Authority
John M. Conley	International Administrative Vice President and Air Transport Division Director	Transport Workers Union of America (TWU), American Federation of Labor and Congress of Industrial Organizations (AFL-CIO)
Cynthia M. Egnotovitch	Segment President, Nacelles and Interior Systems	Goodrich Corporation (Goodrich)
Patricia A. Friend	International President	Association of Flight Attendants (AFA) – Communication Workers of America (CWA), AFL-CIO
Ana McAhron-Schulz	Director of Economic and Financial Analysis	Air Line Pilots Association, International (ALPA)
William J. McGee	Consultant	Consumers Union
Daniel McKenzie	U.S. Airlines Research Analyst	Hudson Securities, Inc.
Jack J. Pelton	Chairman, President and Chief Executive Officer	Cessna Aircraft Company
Nicole W. Piasecki	Vice President, Business Development	Boeing Commercial Airplanes (Boeing)

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<b>Name</b>	<b>Title</b>	<b>Affiliation(s)</b>
Raul Regalado	President and Chief Executive Officer	Metropolitan Nashville Airport Authority
Glenn F. Tilton	Chairman, President and Chief Executive Officer	UAL Corporation (UAL)
Christopher J. Williams	Chairman and Chief Executive Officer	The Williams Capital Group

**Committee Members Not in Attendance**

<b>Name</b>	<b>Affiliation(s)</b>
Robert L. Lekites	President United Parcel Service (UPS) Airlines

**Other Officials Present**

<b>Name</b>	<b>Affiliation(s)</b>
Raymond H. LaHood	Secretary of Transportation DOT
J. Randolph Babbitt	Administrator Federal Aviation Administration (FAA)
Pam Hamilton <i>(Designated Federal Officer)</i>	Director of Rulemaking FAA

**BACKGROUND AND WELCOMING REMARKS**

This is the record of the first meeting of the Future of Aviation Advisory Committee (FAAC), a Federal Advisory Committee formed pursuant to and subject to the requirements of the Federal Advisory Committee Act (FACA).

Ms. Susan Kurland, Committee Chair, called the meeting to order at 9:32 a.m. She welcomed the committee members and public in attendance, and opened the meeting by presenting background information on the FAAC. Ms. Kurland explained that the concept of the FAAC was first proposed at an aviation forum hosted by Secretary of Transportation Ray LaHood at the DOT on November 22, 2009. She stated that the FAAC has been charged with a mandate to collaboratively examine the critical challenges facing the U.S. aviation industry, and to present realistic and achievable recommendations for action.

Ms. Kurland noted that the FAAC is composed of representatives from diverse segments of the aviation community—airlines, airports, labor, manufacturers, academia, the financial community, general aviation, and consumers. She thanked the committee members for their participation.

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Ms. Kurland introduced Secretary of Transportation Raymond LaHood. Ms. Kurland briefly outlined Secretary LaHood's experience and achievements, and invited him to address the FAAC.

Secretary LaHood welcomed the committee members, thanked them for serving on the FAAC, and expressed high hopes and expectations for its success in ensuring that aviation in the United States remains vital, competitive, sustainable, and safe. He discussed the origins of the FAAC at the Future of Aviation Forum held in November 2009, and recognized the role of FAAC member Ms. Patricia Friend, AFA, in its creation.

Secretary LaHood outlined five areas identified by industry participants at the Future of Aviation Forum as warranting discussion by the FAAC:

- Ensuring aviation safety,
- Ensuring a world-class aviation workforce,
- Balancing the industry's competitiveness and viability,
- Securing stable funding for aviation systems, and
- Addressing environmental challenges and solutions.

Secretary LaHood challenged the committee to observe three guiding principles in its discussions:

- Develop recommendations that can be acted upon now or in the near future, with real results.
- Be conscious of the powerful tools available to the DOT and FAA to give effect to recommendations:
  - Federal rulemaking,
  - Proposing legislation to Congress, and
  - Recommending compliance measures for private industry.
- Bear in mind that the strength of the FAAC is its diversity. Secretary LaHood urged the committee members to listen to one another, learn from one another, and build bridges of collaboration and cooperation to foster the insight and innovation necessary for success.

Secretary LaHood closed his remarks by stressing that the FAAC has a unique opportunity to ensure that the industry not only survives, but thrives. He then introduced FAA Administrator Randy Babbitt, and invited him to address the committee.

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Administrator Babbitt welcomed the FAAC and echoed the sentiments of Secretary LaHood in expressing gratitude to and confidence in its members. He stated that the FAAC's task is a monumental and important one. He noted that the aviation industry has been particularly hard hit by recent economic difficulties, and called upon the committee to provide guidance and ideas that can be put into action. He stressed the importance of aviation to commerce and the overall economy. The Administrator also noted that, as always, safety should be the primary consideration when making any recommendation.

Administrator Babbitt reviewed the five areas of discussion provided by the Secretary, and urged the FAAC to focus on providing a relatively small number of recommendations that are actionable in the near term. He stated that the FAAC represents a sincere effort to improve the industry; he set out several guidelines to be considered:

- Long-term profitability is a prerequisite to any other objective for the airline industry.
- The industry has to be environmentally sensible in its actions.
- The FAAC should not overlook the role of general aviation in the development of aviation professionals.
- The FAAC should also keep in mind the tremendous direct and indirect impact the aviation industry has on the U.S. job market.

Administrator Babbitt closed his remarks by reiterating the high expectations held for the FAAC, and offered the FAA's assistance to the committee's efforts.

Ms. Kurland thanked the Secretary and the Administrator, and introduced the individual members of the FAAC. She addressed the members of the public observing the meeting, and urged them to communicate with the committee through the regulatory docket at [www.regulations.gov](http://www.regulations.gov) (Docket No. DOT-OST-2010-0074), or through the FAAC email at [FAAC@dot.gov](mailto:FAAC@dot.gov). Ms. Kurland then introduced Ms. Pam Hamilton, Director of Rulemaking, FAA, and the Designated Federal Official (DFO) for the FAAC meetings.

Ms. Hamilton briefed the FAAC on the history and purpose of FACA, and noted some of its key requirements, including balanced representation and publicly accessible meetings. She also outlined her own responsibilities as DFO, including maintenance of information on cost and membership, ensuring efficient operations, and keeping publicly available records of FAAC activities.

Ms. Hamilton stated that four additional meetings of the FAAC will take place. She noted that all meetings will be accessible to the public and will be broadcast via live streaming video on the FAAC Web site at [www.dot.gov/FAAC](http://www.dot.gov/FAAC). Additionally, she stated that interested persons will have the opportunity to submit comments before each meeting, and the minutes of each meeting will be made available both in the regulatory docket and on the FAAC Web site.

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Ms. Hamilton read the formal statement required under FACA, and listed safety and security guidelines for the members of the public in attendance. She then turned the meeting back over to Ms. Kurland to open substantive discussion.

## **DISCUSSION**

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Ms. Kurland outlined the FAAC's agenda for the day. She noted that each of the five subject areas Secretary LaHood cited would form the basis for a 45-minute discussion by the FAAC. Ms. Kurland stated that she would begin discussion of each issue by presenting preliminary points and questions, and then turn discussion over to the other committee members. She also stated that the FAAC would establish a subcommittee to address each subject area in depth and develop potential recommendations for consideration by the full FAAC.

After noting the time constraints on the FAAC's agenda and reminding the FAAC and the audience in attendance that questions and comments from the public would not be entertained at this meeting, Ms. Kurland opened discussion on the FAAC's first subject area, aviation safety.

### **Aviation Safety**

Ms. Kurland began the discussion by stressing that safety has been and must continue to be the highest priority for the government and industry. She stated that continuing along this path will require identification of measures that will most effectively reduce safety risks. She emphasized that the FAA is presented with an overwhelming number of recommendations and mandates to address threats to safety. Ms. Kurland asked the FAAC to consider ways that the FAA can prioritize its safety agenda, and challenged it to suggest measures other than rulemaking to quickly adopt the most pressing initiatives.

Ms. Nicole Piasecki, Boeing, raised two factors she believes are important efforts to maintain and improve safety. First, she noted that the aviation industry has enjoyed tremendous benefits as a result of collaborative safety initiatives begun in the mid-1990s, most notable among them being the Commercial Aviation Safety Team (CAST). She stated that efforts to maintain and improve safety will continue to be best served by a model of various stakeholders working together. Second, she stated that a commitment to data-driven, risk-based analysis has and will continue to serve the goal of safety, and urged all parties to support continued open sharing of data to permit predictive safety analysis. Numerous committee members echoed Ms. Piasecki's advocacy for data sharing and voluntary disclosure programs, and touted the success of initiatives such as safety management systems (SMS), the aviation safety action program (ASAP), and the advanced qualification program (AQP).

Dr. Juan Alonso, Stanford University, pointed out that to be effective, data sharing programs must collect useful data that can be used to predict future threats, rather than to analyze past ones. For that reason, he urged that data collection be very carefully thought out, with an eye toward known trends and anticipated future factors not currently in play.

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Mr. Bryan Bedford, Republic Airways, also spoke favorably of the impact of the collaborative safety atmosphere experienced in the past 15 years, but expressed concern that relations between industry and government seem to have become more confrontational in recent years. He urged regulators to create an environment where workers are encouraged to bring mistakes to light and correct them, rather than hide them to avoid negative repercussions. Ms. Friend noted that, while effective, voluntary programs do not eliminate the need for compliance monitoring by regulators.

Mr. William McGee, Consumers Union, pointed out that while data sharing and analysis is of tremendous value, it at times fails to take into account other factors that are not captured, such as changes in policy. As an example, Mr. McGee noted that there has been a shift toward outsourcing of air carrier aircraft maintenance in recent years. He expressed concern that this trend may be affecting safety in ways that are not immediately apparent. Ms. Cynthia Egnotovich, Goodrich, stated that ensuring that standards for maintenance of equipment are consistently applied is crucial to continued safety.

Mr. David Barger, JetBlue, observed that there is a large amount of interplay among the five subject areas under consideration, and that each actually represents one facet of an overall picture of a healthy industry. He noted that security should also be considered an important component of safety, if not a subject area itself. The importance of security, both physical and economic, was echoed by other committee members in their remarks.

Other members of the committee noted the key role that human factors have played in aviation accidents in recent years. They stressed the importance of a true commitment to safety and of understanding motivational and workforce issues affecting human performance. Mr. John Conley, TWU, offered anecdotal evidence of the importance of a safety culture in an aviation organization. Mr. Glenn Tilton, UAL, stated that safety requires a tremendous investment in educating employees on all aspects of the environment in which they operate.

Mr. Tilton also reiterated Administrator Babbitt's point that safety is more easily achieved by a financially healthy and stable industry. Dr. Severin Borenstein, University of California, Berkeley, cautioned that, since deregulation, some level of economic volatility has been inherent in the air carrier industry, and this circumstance is not likely to change in the near future. He stated that efforts must be robust to ensure safety in spite of the economic instability of individual operators or of the industry overall.

Ms. Ana McAhron-Schulz, ALPA, stated that one way the FAA could more effectively address safety concerns is to improve the process of rulemaking. She noted that the existence of competing interests often contributed to long, drawn-out rulemakings, and urged a streamlining of the process to more quickly address safety issues. Ms. Friend supported this view, and questioned the effectiveness of committees like aviation rulemaking advisory committees, because of their frequent inability to reach a consensus. Secretary LaHood acknowledged the imperfection of the rulemaking process, noting that he had been surprised at its complexity when he assumed his office.

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Ms. Kurland asked the FAAC to discuss the topic of SMS. She defined SMS as a systemic and continuous management process based on a proactive risk-based system. She noted that a recent aviation rulemaking committee recommendation called for the adoption of SMS for all major segments in the U.S. aviation industry. She explained that the recommendation posed the question to the FAA of how it could incentivize the aviation industry to more widely adopt voluntary programs and how it could use confidentially submitted information to enhance the effectiveness of individual SMS.

Some committee members questioned whether incentives are necessary, in that there are powerful built-in incentives to engaging in best practices such as SMS. Mr. Barger noted that initiatives like SMS must be pursued at the highest levels of organizations, and not only at the line level. He also reiterated that operators can learn much from each other, and encouraged active dialogue and sharing of safety information and experiences among air carriers. Ms. Susan Baer, PANY/NJ, pointed out that regulators and other governmental bodies should also participate in this dialogue.

Mr. Christopher Williams, Williams Capital Group, expressed the view that identification of best practices is, to some extent, subjective. He suggested that if there was an objective way for consumers to identify and determine which air carriers have the best practices and most robust safety systems in place, competition for high rankings would provide incentive. Some committee members noted the difficulties in achieving such an objective assessment, given the differences between air carriers' operations, and, more importantly, the diversity of offices and individuals involved in oversight of air carriers. Mr. Bedford offered anecdotal evidence of conflicting interpretations of regulations by different FAA offices with oversight over his company's operations.

The FAAC also briefly addressed issues of occupational safety. It was pointed out that air carriers must walk a fine line between providing customer service and ensuring the safety of their own employees.

### **Labor/Workforce**

Ms. Kurland closed the FAAC's discussion of safety and began the topic of labor and workforce. She stated that the existing U.S. air transportation system is the safest, most reliable, efficient, and productive in the world, and to ensure its future viability and excellence, it will be necessary to continue to build a skilled and professional workforce.

Ms. Kurland noted that, although employment in the air carrier industry had shrunk between 1999 and 2009, job growth is anticipated in the industry in coming years as a result of economic and other factors. Ms. Kurland posed two questions to the FAAC:

- What are the anticipated hiring needs in aviation over the next 10 years?
- What crucial skills will be needed for pilots, flight attendants, mechanics, engineers, and other employee groups?

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Discussion began with a dialogue on the relationship between collective bargaining and building a skilled workforce. Some committee members expressed the view that collective bargaining is instrumental in attracting skilled employees to the workforce, and that the success of collective bargaining hinges on the stability of the industry. Other members noted that collective bargaining is not universal throughout the industry, and air carriers can operate outside of the collective bargaining environment. One committee member noted that bargaining negotiations can drag on for years without resolution, and suggested that the process be streamlined.

Mr. Daniel McKenzie, Hudson Securities, Inc., observed that some air carriers have a culture of collaboration and understanding between labor and management, and suggested that success rests in such a collaborative relationship. He noted that, in some cases, there has been a failure on the part of labor to recognize the importance of economic viability. Mr. McKenzie also noted that part of the problem facing air carriers in recent years has been increasing volatility in expenses – particularly fuel expenses – which has impacted labor relations and bargaining. He stated that the industry must adapt to the dramatic changes in its economic environment, and its relationship with labor must be part of that adaptation; labor and management must work together to manage profitability in changing conditions.

Numerous committee members acknowledged that instability in the industry impacts its ability to attract or retain employees, and air carriers must offer job stability to attract potential employees. Mr. Tilton stated that the air carrier industry is experiencing unprecedented economic challenges. Nevertheless, he noted that attrition in the industry has historically been low. Mr. Tilton attributed this to a love of the industry and a corresponding willingness of its employees to weather problems.

Several other committee members agreed that the industry has, in the past, been fueled by individuals with a passion for aviation, but expressed concern that, because of instability and competing career opportunities, such individuals are no longer attracted to the industry. Mr. McGee noted that the entry-level workforce is more transient and less career-oriented than it was 20 or more years ago. Ms. Piasecki characterized the industry as in crisis mode with respect to recruiting. Mr. McGee and Ms. Piasecki pointed out that in an industry where knowledge has been passed on from more experienced workers, there are fewer and fewer junior workers to receive that knowledge. Ms. Thella Bowens, San Diego County Regional Airport Authority, noted that attracting talented, intelligent professionals to the airport side of the industry is a challenge. She also noted that traditional career models have changed in recent years, and employers may need to adjust their expectations with respect to long-term commitment to a single industry.

Mr. Bedford and Ms. McAhron-Schulz noted that pilot positions are no longer as attractive as they once were, because of a number of factors, including changes in compensation progression, corporate instability, and potential for furloughs. Mr. Bedford also noted that uncertainties about career progression from regional air carriers to major air carriers are a disincentive to some prospective pilots.



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Dr. Borenstein stated that many of the problems enumerated by other committee members were emblematic of the industry since deregulation. The rapid growth and technological change of the past 30 years has dramatically affected what it means to work for an air carrier. He noted that, because of economic trends, problems like corporate instability are being experienced by all industries to some extent, and some air carriers have handled economic fluctuations better than others. He observed that the industry has nevertheless been able to provide jobs that pay well.

Ms. Baer and Mr. Bedford noted that in recent years, the flagging aviation job market has forced schools offering aviation education programs to diversify their curriculum to enable students to find jobs elsewhere. Ms. Baer noted that the relative lack of young people entering the industry will impact its future growth.

Ms. Piasecki stated that individuals with technical and engineering backgrounds are critical to competitiveness, and that the lack of students with degrees in those areas joining the job market is troubling. She noted that China has expressed its intent to enter the commercial aircraft market, and its educational institutions are turning out large numbers of technically educated workers. Dr. Alonso confirmed that technical degree programs are not attracting the best and the brightest students; he agreed that action is required. He suggested that one way to attract more people to the industry is through innovation; that is, addressing environmental and other challenges that face the industry better than international competitors.

Ms. Baer also raised the subject of support contractors' employees. She noted that air carriers and other operators are increasingly outsourcing support services, such as baggage handling. These jobs are now being performed for extremely low wages, with the result that contractor employees are often working two jobs, with a negative effect on safety and security.

Ms. Kurland posed the question to the FAAC of whether future jobs in the industry would require different types of skills from those required today, and, if so, how individuals with those skills could be attracted. Mr. Tilton stated that individuals with technical and information technology skills would be needed, but pointed out that there is extreme competition for employees with such skills. He stated that unless the industry could offer such individuals attractive, stable employment, they will choose careers elsewhere.

Secretary LaHood asked the FAAC members what advice they would offer a job-seeker about a career in the airline industry. Mr. Barger stated that he would offer encouragement, and urge that person to test the limits of the industry. He stated that the industry and government must explore new business models, including examining current limitations on foreign ownership of air carriers.

Ms. Baer stated that she would advise a student to get as much education as possible, including pursuing continuing education after beginning to work. She also noted that there is no longer a clear career path in the industry, and workers need to be flexible and open to different career models. She added that she would also emphasize the important role aviation plays in the national and international economies, and how a career in aviation can contribute significantly to the development of the country.

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Ms Kurland posed a question to the panel about what could be done to attract more talent to the industry. Dr. Alonso suggested that the industry must make the prospect of a career in aviation exciting to students. He acknowledged that the aerospace industry will always attract a core group of “diehards,” but must attract more than those individuals. He stated that talent coming from colleges and trade schools see exciting career paths in emerging industries, compared with an industry that has been doing largely the same thing for the past 30 years.

There was some disagreement about whether aviation is competitively exciting. Ms. Piasecki cited the Boeing 787 as representing a dramatic step forward in aircraft design and production. Mr. Jack Pelton, Cessna Aircraft Company, pointed out that while discussion was focusing on the air carrier industry, there are many other segments of the aviation industry that can offer fulfilling careers to potential employees. He stressed the importance of general aviation as the entry point for pilots and maintenance technicians. Mr. Raul Regalado, Metropolitan Nashville Airport Authority, described the wide variety of jobs available in the airport management sector, while noting the difficulty sometimes encountered in making prospective employees aware of these jobs.

Mr. Tilton questioned whether there is significant need to attract individuals to the aviation industry. He noted that there is no shortage of applicants for a variety of positions in the air carrier segment, including positions requiring skills that translate to other industries.

Likewise, Mr. McKenzie challenged the assumption that the industry is in immediate need of new workers. He stated that the air carrier industry experienced 30 years of rapid growth following deregulation, and in fact may have grown too rapidly over the last 10 years. He forecasted zero growth in the industry over the next 3 to 5 years. He reiterated that the industry is in a period of adjustment to economic changes, and, it is hoped, will emerge from that adjustment as an attractive career path for employees.

At the close of the discussion on labor and workforce, Ms. Hamilton reminded the FAAC members that they should not discuss any FAAC business among themselves over lunch, and solicited a motion for temporary adjournment. On motion, duly seconded and approved by the majority of the FAAC members present, the FAAC adjourned for 1 hour.

The meeting resumed at 12:49 p.m. Ms. Kurland welcomed the committee and audience back from the break. She reviewed the agenda for the afternoon, which included discussions on competition, finance, and environmental issues.

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## **Competition**

Ms. Kurland stated that the aviation industry has undergone fundamental changes since 2000, and travelers are now more sensitive to prices because of the increased presence of low-cost carriers and price transparency brought about by the Internet. She noted that legacy carriers are facing stiff competition in domestic markets, and their future growth will likely be in international markets and through alliances with other air carriers.

Ms. Kurland stated that the industry has faced many challenges since September 11, 2001, including sudden acute respiratory syndrome (SARS), swine flu (H1N1), security threats, volatile fuel prices, and a number of economic crises worldwide. She asked the FAAC to discuss the changes it envisions in the airline and aerospace manufacturing industries over the next 5 to 20 years.

Mr. Tilton responded that the nature of competition will change dramatically in the next 5 to 10 years. He emphasized that the industry is in a global marketplace, and stated that he expects more alliances and joint ventures among air carriers. He noted that since deregulation, the competitive focus has been on the domestic marketplace and on low-cost carriers. He stated that, going forward, the focus of legacy carrier business models will increasingly shift to their international operations, with regional operators providing domestic capacity to feed legacy carriers' hubs and international operations. He also envisioned that the products offered by regional carriers and low-cost carriers will be differentiated as individual value propositions, with regional carriers offering service mirroring that of legacy carriers.

Mr. Barger agreed that the industry is part of a global marketplace, and the competitive structure is likely to change. He noted that there are now different business models in place, and he expects to see more of a focus on point-to-point flying, as opposed to hub-and-spoke systems, which will drive a different domestic business dynamic. He also stated that he expects domestic competition to remain vigorous.

Dr. Borenstein expressed a concern that some committee members believe that the volatility of the industry is a reason to reduce competition. He stated that over the past 30 years, a repeated cycle of overinvestment during good years, followed by overcapacity and severe financial distress during times of reduced demand has been evident. He noted that the need to build extensive networks always leaves some players behind, but that decreasing competition to attempt to stabilize the industry is not the solution.

Ms. Baer stated that she believes the industry would undergo increasing globalization, and increased grouping of airlines around their alliance partners, not just economically, but physically at large airports, such as John F. Kennedy International Airport. Ms. McAhron-Schulz stated that she expects to see increased consolidation and participation in alliances, as well as other joint ventures short of consolidation, and that she thinks air carriers will have to adapt business models to remain competitive.

Mr. McKenzie questioned whether there would be significant continued competition between low-cost carriers and legacy carriers. He noted that low-cost carriers are backfilling markets vacated by the legacy carriers, and stated his belief that the most efficient operators are replacing the least efficient ones.

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Ms. Piasecki stated that the growth of the air carrier industry has been caused by increased competition, which has resulted in development of new technologies to solve customers' problems. She expressed her belief that continued government liberalization of international trade will foster further competitive growth; she stated that Asia is a substantial growth opportunity for legacy air carriers. Ms. Piasecki noted that the emergence of new aircraft manufacturers is helping bring about an end to what has essentially been a duopoly in the large-aircraft manufacturing market, but cautioned that governments should not subsidize aerospace manufacturers, explaining that a level playing field is crucial to the industry.

Ms. Kurland next sought the FAAC's views on the prospects for code-sharing and other collaborative ventures between legacy and low-cost carriers. She also asked the committee about its views on the foreseeable impacts on consumers from the changes being discussed.

Mr. McGee noted that while code-sharing brings benefits, he questioned the extent to which air carriers have educated consumers as to the practice, and suggested that code-sharing arrangements be made transparent to consumers. Dr. Borenstein added that he believes code-sharing misleads consumers.

Dr. Borenstein noted that commitments to seamless service made when code-sharing first appeared have declined and that what presently exists is, in reality, a system of joint ticketing. He stated that in the mid-1980s, air carriers had open joint ticketing agreements that allowed travelers to fly on multiple carriers within an itinerary without penalty, but this was not seen to be in the air carriers' interest, and the practice ended. He noted that in the late 1990s, alliances among domestic air carriers, which essentially constitute joint ticketing, began. Dr. Borenstein added that unlike open joint-ticketing agreements, alliances exclude some carriers, especially low-cost and startup carriers; this has reduced competition. He expressed the belief that, although it cannot be extended to international operations, open ticketing serves a useful purpose for consumers, and should be promoted.

Mr. Tilton stated that the domestic air carrier industry is extremely competitive, with very few barriers to entry by new competitors. He noted that this competition and continuing technological advances that make travel easier are greatly beneficial to the traveling public. He encouraged the committee to look to the future, not the past, for success. As an example, Mr. Tilton discussed the business model pursued recently by market entrants based in the Middle East that have a very small home market, but see value in offering global international service. He noted that these air carriers are providing a high quality product, and they demonstrate that U.S. carriers must remain competitive globally.

Mr. Barger noted that with respect to code-sharing between legacy and low-cost carriers, there are opportunities to identify areas where differing business models could work together. He stated that the industry should look for win-win solutions, not necessarily attempt to create winners and losers.

Ms. Kurland asked Ms. Egnotovich for her perspective from an aerospace manufacturing standpoint. Ms. Egnotovich stated that manufacturers must remain competitive globally and noted that as foreign countries begin to build more aircraft, they will develop their own suppliers as well. She stated that to keep up, U.S. manufacturers must keep their processes lean. She added that regulations that allow competition and government credits for research and development costs would help.

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Ms. Kurland asked the committee for opinions on intermodal relationships. Ms. Baer discussed the extension of the monorail at Newark Liberty International Airport to access Amtrak's Northeast Corridor and how, as a result of this expansion, Continental Airlines now code-shares with Amtrak. She expressed her belief that this sort of cooperation works well in crowded corridors, such as the Northeastern United States, but is rare elsewhere in the country. She also noted that some air carriers offer code-share service with bus lines, but she has seen little potential for expansion of these agreements.

Ms. Kurland noted that the DOT is involved with high speed rail lines and mass transit, and sought views on how these related to air service. Ms. Bowens responded that while airports have resisted these relationships over the years, it is increasingly apparent that intermodal relationships are necessary to meet future demand, especially in communities where there has been little new infrastructure added at airports because of a lack of community support. She also noted that high speed rail is slowly progressing, and relationships between railways and the aviation industry will likely increase in the future.

Mr. Regalado presented a differing view on intermodal relationships, noting that they can actually hurt airports by eroding revenue from parking, on which many airports rely. He cautioned that airports will have to look for other sources of revenue, and if they cannot be identified, costs may be passed to air carriers. He noted that some airports are already experiencing declining revenues as passengers find alternatives to airport parking. Ms. Bowens expressed her belief that new revenues can be found in intermodal partnerships and value can be found through creative solutions.

Mr. Barger stated that investment in high speed rail projects is good, but it should not reduce needed investment in the national airspace system for critical projects such as the Next Generation Air Transportation System (NextGen). He also noted that JetBlue is working with Amtrak on customer service and emergency-response procedures, because they operate in close proximity to each other and believe they may find synergies among their programs.

Mr. Tilton noted that, like individual carriers, hub airports compete with one another for traffic. He stated that intermodal code-sharing could provide opportunities for hubs to garner feeder traffic from nearby markets where air service is not warranted. He stated that such intermodal access could become a source of competitive differentiation for communities situated between two competing hubs.

Dr. Borenstein stated that he sees tremendous value to consumers in intermodal joint ticketing between, for example, Amtrak and air carriers, but expressed the view that such ticketing opportunities should be open, and not limited by exclusivity provisions.

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Ms. Kurland shifted the discussion to international competition. She stated that the DOT has negotiated nearly 100 open skies agreements with foreign countries to date to provide opportunities for the growth of the industry. She asked for the FAAC's views on what the government's role should be in fostering international competition. Mr. Tilton commended the DOT for its work with open skies agreements and stated that they have leveled the international playing field and removed regulatory complexity from it. He cautioned that U.S. air carriers must pay close attention to the rules of engagement in the marketplace, and to changing paradigms in the industry embodied by newly entered international carriers.

Mr. Conley added that while the industry remains nervous about the effects of international competition on domestic jobs, changing conditions offer opportunities as well as threats. He stated that the industry is evolving and little can be done to stop it; adaptation will be necessary.

Dr. Borenstein suggested that international competition is moving in the right direction, but not aggressively enough. He cited the recent case of an investigation into the financing of startup air carrier Virgin America, and observed that it was in conflict with the DOT's goal of benefiting consumers. He stated his belief that greater competition from foreign carriers will stimulate competition among domestic carriers, and globalization of the industry should proceed, much as it has within other U.S. industries. Ms. Friend noted that air carriers are different from other industries because of their importance to overall commerce and the economic well-being of communities.

Ms. Kurland sought the committee's views on air service to small and rural communities, as this is an area of interest to the Obama Administration and the DOT. Mr. Bedford outlined his views on service to these communities, stating that the 1990s mentality of air carriers providing service everywhere led to a buildup of huge networks and a bad outcome. He stated that code-sharing and other collaborative efforts can bring balance to the industry and offer benefit to consumers, as some operators, such as regional carriers serving smaller markets, can provide service economically where others cannot. He also noted that code-sharing provides novel opportunities for optimizing use of scarce resources, such as capacity-limited airports. He noted that the ultimate determinant of the value of a practice should not be whether it is competitive or anti-competitive, but whether it is beneficial to consumers.

Ms. Friend stated that lack of air service affects local economies, regardless of whether air carriers can profitably serve the market, and the committee should be concerned with this. She also stated that as high speed rail evolves, it could make regional flying obsolete in some markets, as it has in foreign countries where it is more prevalent.

Mr. Williams added that the primary factor on which air carriers compete is price, and options for small communities can be limited unless the government provides subsidies to make travel more affordable. He noted that there is reduced incentive to engage in collaborative solutions when carriers perceive that a competitor is weak and its potential exit from the market presents an opportunity for increased market share.

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Mr. Pelton reminded the committee to be aware that airports overall are critical to communities, not just for the movement of passengers. He warned of negative consequences if infrastructure is removed or not added to airports that move small numbers of (or no) airline passengers, because other operations affecting commerce in the market, such as cargo operations and general aviation, would be affected. Ms. Baer added that cargo is extremely important to airports and air carriers, and intermodal access to airports is crucial to commerce, not just to passengers.

Mr. McKenzie observed that low-cost carrier business models are based on simplicity, yet it takes complexity to serve small communities. He stated that few low-cost carriers serve small communities, but some are moving into smaller markets than they have traditionally served, and this will feed future growth in the industry.

## **Finance**

The committee shifted its focus to finance issues, with Ms. Kurland providing a background on the financial state of the industry. She noted the large losses incurred by the industry in recent years and stated that profits remain elusive. She also pointed out a need to fund evolving changes in the industry, such as NextGen. She further noted the importance of airline stability to funding of future investment, and asked the FAAC for its views on what is needed to spur development of avionics and early equipage by air carriers.

Ms. Piasecki stated her belief that NextGen is critical for industry and it must be funded. She stated that capital availability has not been an issue for the industry, so the key question is whether a business case can be made for equipage where, ultimately, the costs of equipage can be absorbed by passengers.

Mr. McKenzie noted that the operators opposed to investment often have the oldest equipment, and government assistance may be advisable as an incentive to obtain new equipment. Mr. Barger noted that operational benefits of equipage should provide some incentive. He added that many aircraft already operating with advanced equipment are not enjoying significant benefits because the necessary capabilities are not supported by current ground equipment. He suggested that operational incentives be offered to those who equip ahead of mandates.

Dr. Borenstein stated that for air carriers, equipment is a cost of operating aircraft and should be passed along to consumers, not subsidized by the government. Ms. McAhron-Schulz commented that passing costs to consumers has not been well-received by airline customers in the past; she cautioned against passing too many costs to air carriers. Mr. Bedford noted that approximately 20 percent of an average \$300 airfare is made up of taxes and fees. He questioned how this approximately \$16 billion of revenue is being spent, and stated that industry is not opposed to new investments in equipment, but that validation of the efficiency of current spending and tangible results for investments made by the industry are needed. Dr. Alonso agreed that ensuring value to the industry is an important issue for the DOT and FAA.

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Mr. Tilton noted inconsistencies in the funding of similar initiatives, offering an example of large amounts of economic stimulus funding invested in high speed rail projects, while nothing was invested for modernization of the air traffic control system. He stated that there should be some recognition of the economic benefit to communities offered by efficiency improvements to air service.

Mr. Pelton stated that NextGen is critically important to the industry. He noted that modernization would not only foster benefits like alleviation of congestion, but would contribute to benefits in other areas, such as environmental impact. He noted that the FAAC must determine the true value of modernization to the industry before considering funding options or incentives.

Ms. Kurland asked the committee to shift its focus to airport infrastructure and congestion. She noted that as traffic volume increases, some benefits of NextGen could be lost because of capacity-related delays at airports. She also noted that airports' access to funding varies greatly, and asked the committee if there were innovative funding mechanisms that could provide improvements for airports.

Mr. Williams agreed that some airports have greater access to capital, and much is dependent on how vibrant the local or regional economy is as a whole. Ms. Baer stated that public-private partnerships offer some interesting options. She added that while they tend to limit flexibility and ability to adapt to changing circumstances, they offer access to a wider range of financing, meaning that more projects can be funded at one time. She also noted that the Passenger Facility Charge (PFC) Program has allowed airports to take on major projects that might not have otherwise been possible. She stated that for airports with capacity concerns, the ability to finance NextGen improvements as early as possible is critical.

Mr. Barger noted that collaboration may be needed between air carriers and airports to implement NextGen, and cited, as an example, air carrier cooperation with an ongoing runway improvement project at John F. Kennedy International Airport. Ms. Baer agreed, and cited the successes of air carrier and airport equipage for airport surface detection equipment, model X (ASDE-X), a beginning step of NextGen, at John F. Kennedy International Airport. She expressed excitement for the future.

Dr. Borenstein expressed support for pricing runway access based on time of day and burden, also known as "congestion pricing" as a way for airports to raise revenue.

Mr. Regalado stated that improvements in airspace efficiency have little value without corresponding improvements in airport capacity to handle the traffic. He noted that airport capacity issues can be problematic. He further noted that capacity issues are not limited to runways, but include ramp space, gate space, and landside capacity issues, making partnerships between airport, air carriers, and municipalities necessary to solve problems.

Mr. Regalado also expressed a need to address Airport Improvement Program authorization and allocation funding, and to adjust the PFC ceiling for inflation. He pointed out that PFCs have been effective at reducing the cost burden of airport improvements on local governments and air carriers by passing a portion of the cost to passengers.



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Ms. Bowens noted that airports have traditionally relied primarily on government funding, but suggested that the FAAC should examine the concept of reducing government involvement in airport finance. She suggested that airports be viewed as business concerns, and stated that if airports were economically independent, tax burdens on surrounding communities would be reduced and airports would be better able to seek creative revenue solutions as the industry evolves. Mr. Regalado stated that while this was valid for large and medium airports, small airports likely would experience difficulty generating revenue. He stated that PFCs and other funding would still be needed, though larger airports could likely remove themselves from dependence on PFC funding. Ms. Baer agreed that larger airports could move away from PFC funding in a number of ways, and doing so could allow the airports more flexibility in seeking creative funding solutions.

## **Environment**

Ms. Kurland opened the discussion on environmental issues by noting that the industry has made great progress in several areas, especially fuel efficiency and noise reduction. She noted, however, that work still remains on the aviation industry's environmental impact in the areas of noise, air quality, climate, water quality, and energy. She posed the question to the FAAC of what actions can support research and development for cleaner, quieter, and more fuel-efficient aircraft technologies.

Ms. Egnotovitch stated that thinking on environmental impacts needs to progress beyond carbon and noise. She noted that initiatives in Europe to ban certain types of materials critical to the manufacturing of aircraft and components could have a huge impact on the industry. She stated that potential costs include recertification and the identification and purchase of suitable replacements. She expressed support for tax credits for research and development costs for environmentally friendly technologies, and called for consistency on environmental issues across agencies, both in the U.S. and globally.

Ms. Piasecki noted that the industry is committed to carbon-neutral growth by 2020. She stated that 75 percent of Boeing's research and development spending is devoted to environmental-impact reduction. She also noted that fuel efficiency in air carrier aircraft has improved by 70 percent in the last 50 years. She stated that increased use of composite and lightweight materials and other technologies is crucial to reducing environmental impacts. She noted operational efficiency improvements made by air carriers and stated that more efficient aircraft are needed, but they must be affordable to the carriers. She also stated that the industry is aggressively pursuing use of biofuels, but that further investment and collaborative work is needed.

Mr. Pelton stated that he believes NextGen is a near-term solution for reducing environmental impacts through greater efficiency, while other solutions are more long-term. He cautioned the FAAC not to focus on carbon footprint reduction only, as there are many other factors that can lessen the environmental impact of the industry. Ms. Kurland asked whether the committee believes that technology and/or financing is the bigger barrier to lessening environmental impacts. Mr. Pelton noted his belief that both are inhibiting factors.

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Ms. Baer stated that ground service equipment at airports contribute more carbon emissions than the aircraft operating there, and cited this as an area in need of improvement. Mr. Tilton noted that several air carriers have an initiative to fuel ground equipment with synthetic diesel fuel, and the industry is already a leader in carbon footprint reduction, particularly because of the incentives from cost savings

Ms. McAhron-Schulz stated that the government and industry must leverage existing technologies, such as satellite-based navigation, to realize savings now instead of waiting for future developments. Dr. Alonso noted the industry has made tremendous improvements in the last 30 to 40 years, but cautioned that as volume increases, that trend may reverse itself, with noise and fuel burn becoming problematic. He stated that the 10 to 15 percent improvement in operational efficiencies that could be realized from improvements to the air traffic control system is a near-term goal that should be pursued. He warned that without action, growth of the aviation industry may be hindered by environmental constraints. He also stated his belief that the industry goal of having carbon-neutral growth by 2020 may not be realistic.

Ms. Kurland then sought comment on what role the government should be playing to encourage better technologies. Dr. Alonso responded that the government should fund technology that will not evolve as a result of normal economic forces, and that technologies that are 10 to 15 years into the future are not likely to be funded by the industry at present. Mr. Tilton related a recent discussion with advocates for alternative fuels, and stated that development of these fuels is an area where government support is needed.

Mr. McGee observed that consumers need to be educated on the comparative environmental impact of different modes of transportation. Ms. Baer added that communities now seem to be more concerned with emissions rather than noise, and it is difficult to determine exactly what share of emissions are created by airports and not their surroundings.

Mr. Barger noted that the industry has made a lot of good progress on reducing its environmental impact, and stated that these benefits should be touted to the public. He also reiterated previous points to the effect that future innovation in the field of environmental impact will be dependent on a commitment to education in the relevant fields of study.

Mr. Pelton expressed concern over the constraints on testing and certification of alternative aviation fuels. He noted that it was his understanding that a single person in the Federal government is responsible for this task. He stated that more support was needed in this area. Dr. Borenstein cautioned the FAAC that any efforts to address climate change issues could possibly conflict with numerous efforts underway elsewhere, and could result in mandates that are not consistent with policies created elsewhere.

Ms. Kurland next asked the FAAC for its views on renewable and alternative energy sources, and the possibility that they could reduce the price volatility that currently affects the industry. Ms. Kurland noted that there are a number of challenges to wide-scale deployment of renewable energy sources in the aviation industry. She asked the committee how soon they thought the industry would be ready for wide-scale deployment of renewable energy sources.

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Mr. Pelton expressed concern over the price of alternative fuels in comparison to fossil fuels, as well as a potential lack of global availability, which would necessitate interchangeability of fossil and alternative fuels. He noted that there is no impediment to testing and certification.

Mr. Bedford stated that the industry has continuously improved the fuel efficiency of its operations and would continue to do so in the future, strictly because doing so makes business sense. He noted that regardless of the reason, the aviation industry wants to reduce its use of fossil fuels and the industry is willing to invest to reduce fuel burn. He also cautioned that the imposition of carbon taxes on the air carrier industry could be counterproductive to environmental goals, in that increased costs passed on to price-sensitive consumers could result in increased automobile travel, with even greater carbon emissions. Mr. Tilton expressed his opinion that alternative fuels are not yet economical, and industry viability should take priority over environmental matters at present.

Mr. Regalado noted that airports have already adopted goals for air quality and waste management through a representative industry association. He asked the committee to not neglect work that has already been accomplished.

Ms. Kurland asked what steps the government could take to assist with wide-scale deployment of alternative fuels. Dr. Alonso responded that alternative fuels could have a tremendous impact on the industry immediately, and funding is needed to accelerate their wide-scale production and use. Dr. Borenstein cautioned the committee not to put aviation at a competitive disadvantage with other modes of transportation by requiring use of more expensive alternative fuels not used in other modes.

Ms. Piasecki cited tests of alternative fuels accomplished by Boeing, and noted that an international carrier plans to introduce a blend of regular and biofuels into its operations in 2012. She stated her belief that the technical expertise needed for wide-scale introduction of alternative fuels is in place, but the commercial market for them needs further development. Ms. Egnotovich cautioned that all agencies need to collaborate to ensure consistency in the approval process for alternative fuels.

Mr. Barger noted that there are several universities with programs to develop alternative fuels, and their studies should be incentivized. He also noted that the industry has areas in need of improvement and that is the work the FAAC needs to focus upon. Mr. Bedford agreed and expressed his desire for the committee to work together to find solutions to improve the aviation industry.

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**CLOSING REMARKS**

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Ms. Kurland closed the discussion on the environment and thanked the committee members for their participation. She noted again that the FAAC would form subcommittees to address each of the five areas of discussion. She stated that the committee members had provided input on which subcommittees they were interested in joining, and announced the following subcommittee chairs:

- Competition Subcommittee — Glen Tilton
- Environment — Brian Bedford
- Finance — Jack Pelton
- Safety — Nicole Piasecki
- Labor/Workforce — Patricia Friend

Ms. Kurland stated that the FAAC members had received proposed subcommittee membership rosters; she sought a motion to ratify them. On motion duly seconded and approved by a majority of the FAAC members present, the subcommittee memberships were ratified. Ms. Kurland stated that the subcommittee membership rosters would be made available to the public on the FAAC Web site.

Ms. Kurland asked each subcommittee to meet at least once before the next meeting of the FAAC and to identify three to five issues that it would like to explore. She stated that the overall objective is for each subcommittee to produce at least one and no more than three concrete and actionable recommendations to be considered for inclusion in the FAAC's final report.

Ms. Kurland stated that all subcommittee meetings were expected to be accessible to the public. She added that Ms. Hamilton would provide guidance on FACA requirements by Friday, May 28, 2010, identifying the subcommittees' support teams and options available to satisfy requirements to the subcommittee chairs.

A question was raised on whether Securities and Exchange Commission restrictions on public disclosure of business information might conflict with participation by some air carrier executives in the scheduled July 2010 and September 2010 FAAC meetings. Ms. Kurland stated that the issue would be investigated and any necessary adjustments would be posted in the Federal Register.

Ms. Hamilton stated that the next meeting of the FAAC is scheduled for July 14, 2010. She added that all information pertaining to that meeting will be posted in advance on the FAAC Web site and in the Federal Register.

Ms. Hamilton reminded the public in attendance that comments are being accepted via email at [FAAC@dot.gov](mailto:FAAC@dot.gov), or through the regulatory docket at [www.regulations.gov](http://www.regulations.gov). She stated that minutes of the meeting would be posted to the docket and on the FAAC Web site.

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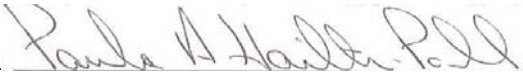
**ADJOURNMENT**

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Ms. Hamilton solicited a motion for adjournment. On motion, duly seconded and approved by the majority of the FAAC members present, the meeting was adjourned.

The meeting adjourned at 2:58 p.m.

I hereby certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

Approved by:   
Pamela Hamilton-Powell, Designated Federal Official

Dated: June 15, 2010