

**Future of Aviation Advisory Committee
Aviation Safety Subcommittee
Record of Meeting**
July 6, 2010
Boeing Aircraft Company
Chicago, Illinois

Public Announcement

The U.S. Department of Transportation (DOT), Office of the Secretary of Transportation, told the public of this Future of Aviation Advisory Committee (FAAC) Aviation Safety Subcommittee meeting in a Federal Register notice published June 17, 2010 (75 FR 34520).

Subcommittee Members in Attendance

Name	Affiliation(s)	
Nicole W. Piasecki <i>(Subcommittee Chair)</i>	Vice President, Business Development	Boeing Commercial Airplanes (Boeing)
Juan J. Alonso ¹	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)
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)
Robert L. Lekites	President	United Parcel Service Airlines (UPS)
William J. McGee ¹	Travel and Aviation Consultant	Consumers Union

Other Officials Present

Name	Affiliation(s)	
Tony Fazio	Designated Federal Official	Federal Aviation Administration (FAA)
Arnold Konheim	Alternate Designated Official	DOT
Susan Kurland	Assistant Secretary for Aviation and International Affairs, <i>(FAAC Chair)</i>	DOT

¹ By phone.

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Other Persons Present

Name	Affiliation(s)
Steven Atkins	Boeing
Bob Bergman	UPS
Patty Clark ²	PANY/NJ
Greg Dellinger	AAR Corporation
Tom Hendricks	Air Transport Association of America, Inc.
Kent Hollinger	MITRE Corporation
Robert Land	JetBlue
Karen Lee	UPS
Levi Moore	Translumen Technologies
Brian Moran	Boeing
Chris Oswald	Airports Council International-North America
Steve Predmore	JetBlue
Corky Townsend	Boeing
David Traynham	Boeing
Daniel Zuspan	Boeing

BACKGROUND AND WELCOMING REMARKS

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

Ms. Nicole Piasecki, Subcommittee Chair, Boeing, called the meeting to order at 1:00 p.m. She welcomed the subcommittee members and members of the public in attendance, and opened the meeting by introducing the members of the subcommittee. She recognized and expressed appreciation for the attendance of Ms. Susan Kurland, FAAC Chair, DOT. She then introduced members of the Boeing Safety Team that would be assisting the subcommittee's work. Ms. Piasecki stated that the meeting's objective was to identify five aviation safety issues from subcommittee member input for discussion at the next FAAC meeting on July 14, 2010.

Mr. Tony Fazio read the formal statement required under FACA and introduced Mr. Arnold Konheim, DOT, the Alternate Designated Federal Official for the subcommittee. Mr. Fazio then turned the meeting back over to Ms. Piasecki to open substantive discussion.

² By phone.

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DISCUSSION

Ms. Piasecki noted that the Secretary of Transportation highlighted aviation safety as a critical issue at the kickoff meeting of the FAAC on May 25, 2010. She stated that the Aviation Safety Subcommittee was tasked with achieving consensus on the top issues that will take what is already one of the safest industries in the world to the next level. She noted the goal for this meeting was to achieve agreement on a methodology for identifying issues for action by the subcommittee. Ms. Piasecki stated she had received good input from subcommittee members on issues for consideration. She noted there was considerable overlap with issues from other subcommittees, which had been expected, and there seemed to be a good deal of consensus already present around some of the topics.

Ms. Piasecki reminded the subcommittee that the Secretary is interested in near-term, actionable items for potential policy/regulatory changes at the DOT. She noted that while there were near-term tactical actions the DOT could take, most of the actions needed to ensure a healthy aviation industry are long-term and strategic in nature. She expressed her belief that a combination of long-term strategic and near-term tactical actions would be best suited for the subcommittee's recommendations, and asked subcommittee members for their input.

Ms. Susan Baer, PANY/NJ, affirmed Ms. Piasecki's thoughts, stating that although the Secretary is seeking near-term actionable issues, results of actions taken often take several years to have an effect. She noted that typically, near-term actions frame a goal but the effects are not seen for some time afterward. She added that the future of aviation is more than a 3-year timeframe, and expressed her belief that a combination of near-term and long-term actions is appropriate.

Mr. David Barger, JetBlue, agreed that a blend of both near-term and long-term actionable issues was appropriate. Mr. Barger cited the implementation of safety management systems (SMS) as an example, because it will take several years to undertake.

Ms. Baer added that the installation of Airport Surface Detection Equipment, Model X (ASDE-X) has been very successful in mitigating safety hazards at airports, and it could be introduced at busy general aviation airports. She noted, however, that it likely would take years to achieve full implementation.

Ms. Piasecki expressed her opinion that it would be difficult not to include recommendations on the Next Generation Air Transportation System (NextGen), even though implementation of this system is still years away.

Mr. Robert Lekites, UPS, noted that when he joined UPS 14 years ago, the transition to Automatic Dependent Surveillance-Broadcast (ADS-B) was under discussion and remains mostly in that state now. He stated UPS equipped its aircraft for ADS-B, but other air carriers did not, leaving UPS with no return on investment and no choice but to stop equipping its aircraft for ADS-B. He cited the need for unified deployment of aviation system improvements.

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Mr. William McGee, Consumers Union, agreed that the subcommittee needs to find a balance between near and long-term issues, while reminding the subcommittee that the Secretary made it clear that recommendations need to be feasible and reasonable.

Identification of Issues for the FAAC

Ms. Piasecki provided each subcommittee member with 3 to 5 minutes to state their recommended issues for consideration by the subcommittee. Ms. Piasecki began by offering her suggestions to the subcommittee:

- Expand aviation safety data sharing and protect the information submitted by aviation system users through voluntary reporting programs.
- Prioritize a large number of recommendations for aviation safety improvements given to the FAA by other government agencies and Congress. Analyze the recommendations and identify the top priorities for implementation.
- Imbed safety performance and enhancements into the development and implementation of NextGen.

Ms. Karen Lee, UPS, provided input for UPS:

- Harmonize enforcement with risk management, because focusing too much on compliance can lead to neglect of risk management.
- Increase air carrier participation in voluntary safety programs, such as Flight Operational Quality Assurance (FOQA) and the Aviation Safety Action Program (ASAP), because they are critical to the implementation of SMS. Some programs may be difficult to implement at some air carriers because of the lack of infrastructure, but others (such as voluntary reporting programs) are easily implemented.
- Establish SMS from the top down at air carriers and ensure executives are prepared for the cultural shift that accompanies it.

Ms. Baer offered her suggestions:

- Apply cost-benefit analysis to potential actions to achieve the greatest improvements to safety and integration of safety improvements in NextGen as it is developed.
- Expand successful safety enhancements from the air carrier sector to the general aviation sector, particularly to reduce the number of runway incursions at general aviation airports.
- Enhance and improve wildlife/bird strike prevention programs.
- Expand voluntary safety programs.

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Mr. Barger noted the FAAC discussed the interrelation of subcommittee topics, and stated aviation is in a period of globalization, furthering the need for implementation of SMS at U.S. air carriers. He questioned what actions could be taken to implement tactical safety improvements in aviation communities, including the issues of runway safety, wildlife strikes, and the Notice to Airmen (NOTAM) system. Mr. Steve Predmore, JetBlue, offered suggestions, which were developed through outreach to operational personnel at JetBlue:

- Improve runway safety, a broad term including runway incursions and excursions.
- Improve the NOTAM system, which is in a desperate condition. A flight covering a relative short distance can have up to six pages of NOTAMs, and the immense amount of information can cause flightcrews to miss important information.
- Determine how best to use the increased amount of data received through bird/wildlife prevention programs. These programs currently are in the data gathering stage and are generating more reports than ever.
- Provide the regulatory framework and best practices for SMS to ensure continuous improvement of aviation safety.

Mr. Barger added that safety, security, and enterprise risk management areas overlap. Ms. Baer commented that best practices also leads to the globalization issue, and the actions undertaken abroad need to be explored. Ms. Piasecki noted the subcommittee received several comments stating that security needs to be included in its considerations.

Mr. John Conley, TWU, AFL-CIO, provided his suggestions, which he noted were broad in scope:

- Create a strong safety culture in the aviation industry, with the realization that employees can and do make mistakes. These mistakes should be reported and learned from, not punished. There should be an environment in which safety concerns may be reported by all.
- Expand voluntary reporting programs, such as ASAP, to other employee groups not presently participating.
- Emphasize fatigue risk management to address the issue of crewmember fatigue.

Mr. Conley noted there is significant overlap with these and other suggestions from subcommittee members.

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Mr. Juan Alonso, Stanford University, noted as an academic he tends to gravitate toward long-term issues. He added that he spoke with a number of industry experts while developing his suggestions:

- Establish initiatives to manage complex systems in the aviation system as a whole, not just aircraft. As the aviation system modernizes, new safety hazards will emerge.
- Develop an understanding of why the aviation system is safe, instead of only pursuing why it is unsafe. Knowing what makes the system safe will aid in keeping it safe in the future.
- Expand the ability to collect safety data to support the future aviation system without punitive actions against reporters. The subcommittee needs to explore how to best collect this data.

Mr. McGee noted that NextGen likely had the most overlap of any issue among the subcommittees, and as a result, he did not include any recommendations on that issue. However, he maintained it does need to be addressed by the appropriate subcommittee within the FAAC. His suggestions were—

- Develop a single safety standard for air carrier aircraft maintenance. This may mean enforcement of existing regulations rather than new regulations. Much of what is needed centers around a Consumers Union study of outsourcing of aircraft maintenance by air carriers.
- Develop a single safety standard for flights operated under parts 121 and 135 of Title 14, Code of Federal Regulations (14 CFR) to ensure passengers who purchase a ticket on a major air carrier but fly on a regional air carrier partner experience the same level of safety.
- Mandate safety seats for small children on air carrier flights. This is on the National Transportation Safety Board most wanted list of safety improvements.

Ms. Piasecki thanked the subcommittee members for their input. She stated that before continuing further dialogue, the Boeing Safety Team would elaborate on the current status of aviation safety and present a potential methodology to assist with identifying issues that could be taken to the FAAC for action. Mr. Steven Atkins and Ms. Corky Townsend, Boeing, gave a presentation to the subcommittee. (See attachment 1 for a copy of this presentation.)

Mr. Atkins noted the subcommittee had an interesting task, and the Boeing Safety Team combined their perspective and the inputs from subcommittee members, which helped with objectivity. He stated it was a difficult task to work 24 inputs into 5 issues, and remarked on the safety of the aviation system and its continuous improvement model. Mr. Atkins emphasized that the aviation industry's collaborative work around safety was remarkable. He cited the work of the Commercial Aviation Safety Team (CAST), a collaboration of government and industry experts tasked with aligning safety resources to achieve the greatest benefit to aviation safety.

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Mr. Atkins began the presentation with slides 1 and 2, which included accident and incident rates. He noted that while much had been accomplished over the past several years, there is still room for improvement. He again praised the collaborative work of CAST, and discussed slide 3, which described the factors involved in an integrated safety system, and noted other industries that do not have as fully developed safety systems as aviation. Mr. Atkins then moved on to slide 4, about the CAST methodology.

Ms. Townsend addressed slide 5, which reported on the Boeing Safety Team's assessment methodology in determining issues for presentation to the FAAC, noting that a key component considered was significance of the issue versus feasibility of change. She cited NextGen, risk management approaches to safety and needed balance between risk management and regulatory enforcement, safety culture, and voluntary reporting systems/data sharing as common themes the team had identified when reviewing the subcommittee members' input. Mr. Atkins noted that when you make a change to a system, you almost always add risk; therefore, the subcommittee needs to be cognizant of NextGen improvements that may introduce new risks into the aviation system. Ms. Townsend agreed, stating implementation of change has inherent risk.

Ms. Piasecki asked Mr. Alonso if his earlier comment on safety of complex systems was addressing the notion of NextGen. Mr. Alonso replied that he was indeed referring to the interaction between aircraft and airspace systems, as well as the notion that the safety of the aviation system is very compartmentalized, noting a need to integrate safety efforts and the numerous offices within various regulatory agencies with responsibilities for aviation safety. Ms. Piasecki asked Ms. Townsend to return to the methodology assessment slide, and for subcommittee members to comment on it. Ms. Baer stated with regard to feasibility, just because something may be more difficult to achieve does not mean it should not be pursued. She was concerned the methodology may be skewed against pursuing difficult issues. Mr. Predmore asked for clarification of the use of the word "significance" in the methodology. Ms. Townsend responded that it referred to the risk of an accident or significant threat to aviation safety.

Mr. McGee noted that there are proactive and reactive approaches to safety threats, and asked if there were issues identified as potential safety threats in the future. Ms. Townsend replied that a lot of benefit was gained by reviewing safety data from voluntary safety reporting programs to discover vulnerabilities, and that previously unknown threats to aviation safety are now being discovered. Mr. McGee acknowledged that the response answered his question to an extent, but he was concerned with hidden issues that may not show up as data until occurrence of an incident or accident, such as preventative maintenance practices not being followed. Ms. Townsend noted that when aviation safety data was primarily obtained from voluntary reporting systems, a safety event typically had to occur to obtain data on safety threats. She stated that with modern safety reporting systems, such as FOQA, data is received on normal operations whether or not an event has occurred. She noted this data can be combined with ASAP reports to explore potential threats, the difference between normal and abnormal events, and means to prevent risk. She added she sees great benefit in expansion of these programs.

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Mr. Alonso commended the Boeing Safety Team's work on prioritization, and noted the top four or five issues were quite broad in nature and could be interpreted in a number of ways. Mr. Alonso, Ms. Baer, and Mr. Conley had a brief discussion on the ranking of certain issues. Mr. Barger noted that the term NextGen was difficult for the aviation industry to define, and agreed prioritizing potential issues according to the CAST methodology made sense. He added that issues for action by the FAAC should translate into actions that will benefit all aviation users, including those at airports, the air traffic control system, operating aircraft, and the human interface overall.

Ms. Baer commented that the subcommittee would begin work to further expand the issues identified at the next subcommittee meeting. She used a suggested issue of "strong safety culture" to identify the need to further define and develop issues for discussion, and noted that many of the identified issues would likely lead to near- and long-term recommendations. Mr. Barger asked Ms. Townsend a question about data sharing, NextGen, prioritization of policies and procedures, and safety culture. She clarified the ranking of issues and areas included in each for Mr. Barger. Mr. Fazio added that the recommendations need to be as specific as possible to be of the most value to the Secretary and to identify new actions that should be taken.

Mr. Atkins noted the aviation industry has improved its ability to cooperate, and commended the good discussion of the subcommittee. He reminded the subcommittee to be cognizant of making recommendations that are already effectively being addressed by other efforts, and to be aware that some areas being addressed may not be addressed in the most effective manner possible. Mr. Atkins expressed his opinion that the biggest threat to aviation safety may be a lack of ability to share safety data. Mr. Fazio stated that the aviation industry is not as successful as it can be with respect to data sharing, though the larger air carriers are well-equipped to handle systems like FOQA and ASAP. He added smaller air carriers may not be able to afford these systems, and may lack the infrastructure to implement these programs. He noted this could be an area where incentives help.

Ms. Piasecki took a moment to summarize the discussion, noting the subcommittee had identified three to four key issues, but she did not believe they would be developed into actionable items at today's meeting. She stated the subcommittee could further develop the issues and assign them to subgroups for action after the next FAAC meeting on July 14, 2010. Ms. Kurland recommended that Mr. Fazio and his colleagues at the FAA provide input on issues the subcommittee elects to explore, to identify any duplicate efforts that may be underway.

(Ms. Piasecki called for a break at 2:30 p.m. and the meeting resumed at 2:47 p.m.)

Ms. Piasecki expressed a need for the subcommittee to identify sufficient areas of discussion for the FAAC meeting on July 14, 2010. She noted several issues had been identified through the presentation from the Boeing Safety Team. She asked if any subcommittee members had noted major issues that had not been discussed. Mr. Alonso stated he was surprised the topic of streamlining certification of systems critical to safety had not been raised. Mr. Atkins believed this was a valid issue and could have been overlooked. Ms. Townsend added the cost of verification and validation of new technologies can inhibit certification, and this is a known issue and industry concern. Mr. Alonso noted while he did not have any specific recommendations, it does seem to be an increasing hindrance to modernizing the

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aviation system. Several subcommittee members noted difficulties in the approval process for procedures and the certification process, citing differences between local and national FAA offices and the need for a streamlined and coordinated process. Mr. Lekites agreed, and added that valuable lessons could be learned from the global aviation industry. He cautioned the subcommittee not to think of solutions in their local environment, but rather the global environment.

Ms. Kurland noted some of the issues identified for action seemed to overlap. Ms. Townsend agreed, though she believes the issues were complimentary in nature. Ms. Kurland asked if some issues could be consolidated as they were more fully developed. Ms. Piasecki agreed the issues were broad, and Ms. Townsend offered some issues to be consolidated. Mr. Atkins suggested the issues had been created for consideration by the subcommittee, but cautioned they may not be the exact wording needed to identify the issue, and consideration should be given to assigning issues to subgroups for further definition and exploration. Ms. Piasecki concurred with Mr. Atkins suggested approach.

Ms. Baer noted other subcommittees are discussing work plans and Ms. Kurland clarified the FAAC's expectation for work plans from the subcommittees (Note: Ms. Kurland's exact clarification was unable to be heard). Mr. McGee added that each subcommittee seemed to be operating in a similar fashion, and asked what this subcommittee intended to deliver after completion of its meeting. Ms. Piasecki reiterated the goal of identifying issue areas for potential action to brief the FAAC at the July 14, 2010, meeting. She added she was in favor of subgroups taking issues for further development and refinement in preparation for the briefing to the FAAC. Mr. David Traynham, Boeing, suggested the subcommittee needed to focus on the next FAAC meeting, and the one-page discussion papers should be developed and circulated among subcommittee members for comment. He reminded the members not to focus on developing full recommendations, rather on topics for discussion at the FAAC meeting.

Mr. Barger and Mr. Predmore raised a concern over duplication of efforts among subcommittees and with work ongoing within the Federal Government. They questioned how the Aviation Safety Subcommittee could ensure its efforts added value. Mr. Barger suggested it was important for the subcommittee to first make general recommendations on issues for action, then work to further define and clarify them. He stated this should afford an opportunity for duplicated efforts to be identified at the July 14, 2010, FAAC meeting. Ms. Piasecki added it would be a good idea to bring FAA representatives to provide guidance to the subcommittee on issues being considered. Ms. Baer agreed the subcommittee needed to work to ensure its recommendations add value, and noted they could include actions currently being taken that are not effectively progressing.

Mr. Lekites raised a previously covered issue, noting Mr. Barger discussed the FAA's focus on regulatory compliance instead of approval of safety procedures. Mr. Lekites stated this is a known issue, though it has not necessarily been acted upon at the appropriate levels, and there is an apparent disconnect between Federal and local FAA components on the issue. He expressed his desire for the subcommittee to raise the issue to the Secretary for action from the top. Ms. Piasecki clarified that Mr. Lekites was suggesting this is a known issue in need of a clarified message. Mr. Lekites agreed, stating resources to improve safety need to be aligned, including regulatory agencies. Ms. Townsend

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noted one of the issues recommended by the Boeing Safety Team was a prioritization of potential safety improvements, and Mr. Lekites' issue could fit within that recommendation.

Ms. Kurland noted on slide 5 of the Boeing Safety Team presentation, the issue of safety at general aviation airports was highlighted. She asked if it was a concern of the subcommittee. Ms. Baer added that the number of accidents and incidents at general aviation airports is proportionally higher than the rate at airports primarily serving air carriers. She acknowledged that many factors affect the rate, but she suggested this could be an indication that safety improvements could be achieved at busy general aviation airports by implementing safety mitigations used at airports primarily serving air carriers. Ms. Baer cited a study completed in 2008 by the Government Accountability Office on general aviation airport safety. She also cited a figure showing that 72 percent of runway incursions in the period from 2003 to 2006 involved a general aviation airport. She expressed her belief that this was an important topic for the subcommittee to consider. Mr. Predmore added that most of the issues presented by the subcommittee were those experienced by the air carrier industry, which could be because of a lack of representation of general aviation stakeholders on the subcommittee. Mr. Barger asked if it would be permissible for the subcommittee to seek the input of FAAC members with general aviation industry experience. Ms. Piasecki stated she would seek the input of Mr. Jack Pelton, Cessna Aircraft Company.

Ms. Townsend noted there were many issues raised regarding the NOTAM system, and this could be solved in the near term. She added that flightcrews often encounter many pages of NOTAMs on routine flights, and important information may be missed because of the sheer volume of information presented. Ms. Piasecki agreed this appears to be a potential issue for action.

Mr. Traynham suggested the subcommittee had identified four strategic issues, and a fifth issue could be near-term tactical issues encompassing multiple areas. Ms. Piasecki agreed with Mr. Traynham's suggestion, and requested that the subcommittee proceed with four strategic recommendations, and a fifth broader category of near-term tactical issues. She explained that some near-term actions could be added into the strategic issues, as well.

The subcommittee briefly discussed a number of potential issues for action, including improvements to the FAA certification and approval process, education of flightcrew members, fatigue, safety culture, and use of child safety seats on air carrier aircraft. Mr. Fazio noted a lot of discussion has taken place on the use of child safety seats on air carrier aircraft, and most resistance is because of economic concerns, namely that forcing the purchase of a child safety seat may in turn send families to less expensive, but less safe modes of transportation. Mr. McGee added this issue has been discussed for years and encompassed numerous studies, but cautioned that some of the research is dated. He noted there could be a significant amount of discussion if this issue is advanced for consideration.

Ms. Piasecki suggested the subcommittee's goal for the July 14, 2010, FAAC meeting was not to propose solutions to identified issues, but rather to present them to the FAAC for consideration of further development. She proposed that the Boeing Safety Team develop a first draft of the subcommittee's recommendations, or that subcommittee members work on drafting topics.

