

Future of Aviation Advisory Committee
Environment Subcommittee
Record of Meeting
November 16, 2010
Teleconference

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) Environment Subcommittee meeting in a Federal Register notice published November 4, 2010 (75 FR 68017).

Subcommittee Members in Attendance

Name		Affiliation(s)
Bryan K. Bedford (<i>Subcommittee Chair</i>)	President and Chief Executive Officer	Republic Airways Holdings, Inc. (Republic Airways)
Juan J. Alonso	Associate Professor, Department of Aeronautics and Astronautics	Stanford University
Kinney Baxter	Attended for Raul Regalado	Metropolitan Nashville Airport Authority
Brian Brandewie	Attended for Cynthia Egnotovich	Goodrich Corporation (Goodrich)
Billy Glover	Attended for Nicole Piasecki	Boeing Commercial Airplanes (Boeing)

Committee Members Not in Attendance

Name		Affiliation(s)
Cynthia M. Egnotovich	Segment President, Nacelles and Interior Systems	Goodrich
Nicole W. Piasecki	Vice President, Business Development	Boeing
Raul Regalado	President and Chief Executive Officer	Metropolitan Nashville Airport Authority

Other Officials Present

Name		Affiliation(s)
Susan Kurland (<i>FAAC Committee Chair</i>)	Assistant Secretary for Aviation and International Affairs	DOT
Lynne Pickard (<i>Designated Federal Officer (DFO)</i>)	Deputy Director, Office of Environment and Energy	DOT/FAA

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Name		Affiliation(s)
Camille Mittelholtz (<i>Alternate DFO</i>)	Environmental Policies Team Leader, Office of Assistant Secretary for Transportation Policy	DOT
Christa Fornarotto	Deputy Assistant Secretary, Aviation and International Affairs	DOT

Other Persons Present

Name		Affiliation(s)
Andrew Compart	Senior Editor and Transport Editor	Aviation Daily and Aviation Week
Steve Csonka	Technical Director Advanced Programs & Environment Strategy	GE Aviation
Scott Harper	FAAC Support	PAI Consulting
John Hennigan	Director of Strategy & Business Development	FAA
Jonathan Hoffman	Senior Principle Scientist	The MITRE Corporation
Krister Holladay	Director, Government Affairs	Goodrich
Anne Kohut	Publisher	Airport Noise Report
Richard Marchi	Senior Advisor, Policy and Regulatory Affairs	Airports Council International– North America (ACI–NA)
Bill Mosley	Public Affairs	DOT
Rick Pittaway	FAAC Support	DOT
Rick Pyatt	Vice President, Government Relations	Goodrich
Nancy N. Young	Vice President, Environmental Affairs	Air Transport Association of America, Inc. (ATA)

BACKGROUND AND WELCOMING REMARKS

This is the record of the fifth meeting of the FAAC Environment Subcommittee, a Federal advisory committee formed pursuant to and subject to the requirements of the Federal Advisory Committee Act (FACA). The subcommittee and its meetings are likewise subject to the requirements of FACA.

Dr. Juan Alonso, acting Subcommittee Chair, Stanford University, called the meeting to order at 9:02 a.m.

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ADMINISTRATIVE MATTERS

Dr. Alonso asked Ms. Lynne Pickard, DFO, DOT/FAA, to review the FACA requirements.

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

Ms. Pickard noted meetings of the subcommittee are accessible to the public. She stated 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 at <http://www.regulations.gov> (Docket number DOT-OST-2010-0074) and on the FAAC Web site at <http://www.dot.gov/faac>.

Ms. Pickard read the formal statement required under FACA. She noted although the meeting was open to the public, participation in the meeting was limited to subcommittee members, their alternates, and Federal officials, subject to the discretion of the subcommittee chair. Ms. Pickard added that only subcommittee members and their alternates are entitled to vote on subcommittee business.

DISCUSSION

Dr. Alonso discussed the meeting's agenda, which included discussions of the four proposals for potential recommendations brought forward to the full FAAC at the Los Angeles meeting. Dr. Alonso listed the four proposals:

1. Operational and Infrastructure Improvements
2. Research and Development related to Airframe and Engine Technologies
3. Sustainable Alternative Aviation Fuels
4. Harmonized Sectoral Approach for CO₂ Emissions Reductions.

Dr. Alonso stated feedback from the full FAAC is incorporated into these four proposals, and they are ready to go forward as full recommendations. He noted that in today's meeting the subcommittee must prioritize these proposals before bringing them to the full FAAC. He stressed that it was important to achieve this at the day's meeting because the finalized recommendations are due to the DOT on November, 22, 2010. Dr. Alonso stated there was a slight change in the format of these recommendations that would require additional writing assignments by the end of the week to meet the deadline.

Ms. Pickard stated the subcommittee must vote on the proposals, which will be brought forward as recommendations and will require notation reflecting consensus or dissent. She reminded the alternates representing FAAC committee members that their votes count as votes from the FAAC committee members.

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Dr. Alonso reminded the subcommittee all the proposals would go forward. He stated priority would be based on which proposals are the most actionable by the Secretary of Transportation.

Ms. Pickard stated the subcommittees are not limited in what they can present to the full FAAC, nor is any subcommittee required to pare down its number of proposals. However, subcommittees were asked to prioritize their proposals.

Dr. Alonso reviewed each focus area, and then asked the author of each to open discussion for any changes. He started with Operational and Infrastructure Improvements. Dr. Alonso noted this was very close to NextGen. Before the subcommittee continued with the discussion, he asked Ms. Pickard whether there were discussions about making NextGen a joint recommendation from all subcommittees, or if the subcommittees should proceed on their own. Ms. Pickard stated each subcommittee was to proceed on its own; it was not yet determined whether a general recommendation would be proposed to prevent redundancies.

Dr. Alonso read the proposal for Focus Area No.1, Operational and Infrastructure Improvements, which states—

“Seek substantial additional targeted investment to accelerate equipage elements of NextGen that will have significant near term benefits and increase likelihood of successful deployment. In addition to other surface management efficiencies, establish a ground taxi delay management pilot program and recommend appropriate deployment of taxi delay management methodology for U.S. airport operations within 3 years. For airports, support the establishment of a program to reduce emissions from airport power sources and increase energy efficiency at airports.”

Dr. Alonso thought the main subject of this proposal was equipage and what is needed to ensure NextGen’s success. He also noted it recommends ground surface management and an airport energy efficiency/emissions program.

Dr. Alonso then read the Research and Development related to Airframe and Engine Technologies proposal, which states—

“Accelerate aircraft technology development with more robust research and development by government and industry. For government, this would involve advocating for a significant increase in funding to FAA’s Continuous Lower Energy, Emissions and Noise (CLEEN) technology program. For industry, advocate for the permanent extension of research and development tax credits.”

He noted this proposal advocates research and development (R&D) for both government and industry, with part devoted to the FAA CLEEN program and part for the R&D tax credits for industry.

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Dr. Alonso then read the Sustainable Alternative Aviation Fuels proposal, which states—

“The Secretary of DOT should lead a national initiative to promote and showcase U.S. aviation as a first user of sustainable alternative fuels. This initiative would involve coordinating and enhancing the concerted efforts of government and industry to pool resources, overcome key challenges, and take concrete actions to promote deployment of alternative aviation fuels through certification, funding, commercial production and deployment, ‘book and claim’ crediting and international and domestic acceptance. These actions would affirm a global leadership position in sustainable alternative fuels.”

Dr. Alonso read the Harmonized Sectoral Approach for CO₂ Emissions Reductions proposal, which states—

“The Secretary of DOT should lead an effort to align federal aviation policy to enhance the confidence of the aviation industry and federal government to make needed investments in the technological, alternative fuel, infrastructure and operational improvements necessary to meet a pragmatic set of emissions targets and proposals that can be harmonized among key aviation nations (markets) around the world. Advocate for acceptance of a coordinated global and domestic framework for aviation CO₂ emissions. It is important to set a strategic course for further international agreement through ICAO and follow with bilateral negotiations to secure the support of other countries. The Secretary should take advantage of industry assets to develop practical global implementation methods (e.g. IATA members have already agreed to create an emissions inventory system— the basis for any measurement of emissions reduction progress.)”

Dr. Alonso stated he wanted to put the subcommittee’s four proposals to a vote, for the record.

Mr. Kinny Baxter, Metropolitan Nashville Airport Authority, stated he thought there would be a recommendation that the Secretary support the Airport Improvement Program (AIP) legislation on funding energy related projects for airports. Ms. Pickard reminded Mr. Baxter it is in the Operational and Infrastructure Improvements proposal, but was reworded to establish a program to reduce emissions from airport power sources and increase energy efficiency at airports. She noted there was more information in the background paper on this subject and stated there might be a need to review the background information to better explain the proposal. She noted the original wording had AIP tied to the reauthorization bill, but on further discussion participants felt it best not to tie the FAAC recommendations to section 611 of a reauthorization bill which has not yet been passed and whose future is uncertain.

Mr. Brian Brandewie, Goodrich, asked if the subcommittee had any discussions on AIP grants. Mr. Baxter observed that the subcommittee discussed AIP grants when it discussed the Voluntary Airport Low Emissions (VALE) program. He stated he thought AIP eligibility should not be tied to nonattainment areas. Ms. Pickard noted subcommittee members thought ground support equipment (GSE) was too small a focus and had decided to broaden the proposal. She also stated the description and relation to AIP was in the background material. Mr. Billy Glover, Boeing, added he wanted to ensure the subcommittee took into consideration the backup sections for each proposal.

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Dr. Alonso continued with the vote from the subcommittee on the four proposals to be brought forward as recommendations. Four out of the five subcommittee members voted to recommend all of the proposals. (The fifth member was absent from the voting procedure.)

Dr. Alonso continued to discuss each proposal to further refine the recommendations. He started with Focus Area No. 1 and asked Mr. Baxter if he had anything further to add.

Mr. Baxter agreed they should make the recommendations short and noted the background paper read: "The Environmental Subcommittee proposes that the Secretary establish an airport energy efficiency and emissions reduction program supported by the AIP grants." Mr. Baxter suggested the subcommittee connect this to current airport sustainability programs. He stated the FAA has funded 10 airports to do these studies. He noted this may be a way to prioritize the AIP grants to airports doing these sustainability studies.

Dr. Alonso expressed concern that some of the information included in the background papers was not included in the proposals. Ms. Pickard stated the recommendations brought forward will be in a new format to provide more detail. She noted some of the information included in the background of these proposals could be brought forward and be included in the final recommendations.

Mr. Glover stated the estimate of net present value of the accelerated equipage investments did not get into the background paper for Focus Area No. 1. Mr. Glover noted the figures show a \$6 billion investment yielded by the assessment of the \$15 billion net present value. He suggested this information would give considerable weight to this proposal. Dr. Alonso agreed this should be included, but suggested the subcommittee needed to cite the studies used to gather such information to make the figures more credible.

Ms. Nancy Young, ATA, clarified the point of recommending AIP grants for airport energy. She cited the dialog from the October 5, 2010 meeting where it was suggested the subcommittee would support a pilot program for energy efficiency in various airport projects. She stated the background demonstrated something much broader than a pilot program and is very specific to AIP funding. She expressed her concern about broadening AIP funding and the potential implications. Mr. Baxter expressed concern that the subcommittee did not understand the impact to all airports in terms of utilities. He stated the cost of these utilities is passed on to the airlines. He thought these programs were a way to save millions of dollars. Ms. Young stressed she did not oppose this, but felt there are alternatives to AIP funding.

Mr. Glover suggested the subcommittee adjust the wording on the proposal to use a combination of AIP grants and two or three other examples of funding mechanisms. Mr. Baxter agreed, and Mr. Glover asked others to help him identify some other examples that could be included. Ms. Young stated the Airport Energy Efficiency and Cost Reduction Airport Cooperative Research Program (ACRP) project does suggest a variety of sources that could be assessed.

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Mr. Bryan Bedford, Subcommittee Chair, Republic Airways, joined the meeting and Dr. Alonso summarized for him the meeting thus far. Mr. Bedford agreed the proposals were on the right track and prioritization was important. He stressed to the subcommittee that as they go forward with the recommendations they ask themselves if the recommendation is reasonably actionable, and if the subcommittee wants to discuss how to fund these recommendations. He noted the other committees were having debates on how to pay for the recommendations going forward. He suggested these recommendations should not be placed on hold because of funding questions, and he added the government should take the lead on funding with the belief they will eventually pay for themselves through the user or the industry.

With Mr. Bedford's affirmative vote, Dr. Alonso confirmed the vote as five out of five in favor of advancing the proposals as recommendations to the full FAAC.

Mr. Bedford raised a question regarding the issue of \$40 billion in lost productivity and missed opportunity cited in the Economic and Employment Impact paragraph of the background notes for Focus Area No. 1. He asked if this figure could be broken down to direct costs to aviation and indirect costs in lost U.S. productivity. Mr. Bedford wanted the figure broken down to indicate if the suggested program would actually save as much money as predicted, or if it required an additional investment to reach that goal. Mr. Glover stated he would research the breakdown of the costs and review the report in which these figures were generated. Mr. Glover also suggested he and Ms. Pickard would be glad to edit all four of the proposals and would write them in conformance with the recommendation format.

Dr. Alonso moved on to the Research and Development related to Airframe and Engine Technologies recommendation. Mr. Bedford asked if the paper on this proposal could include a breakout section on environmental impact, as the subcommittee included in the first focus area. He suggested using a graph of emissions reduction, a roadmap, or something similar to what the subcommittee included for NextGen. Dr. Alonso stated he and Mr. Glover would work on this and come up with examples of the environmental impact.

Mr. Glover stated the proposal advocated for a significant increase in funding for the CLEEN program but did not specify the level, and he asked if that is what the subcommittee wanted to recommend. Mr. Bedford stated he was uncomfortable specifying a number, and he thought it better to suggest a "substantial increase." The subcommittee members discussed the additional funding, then determined that leveraging industry's R&D investment could produce the maximum benefits. It was suggested the paper should lead with the industry's R&D tax credits and then follow with CLEEN. The subcommittee members concurred, and Mr. Brandewie agreed to edit the recommendation.

Dr. Alonso moved discussion to the Sustainable Alternative Aviation Fuels recommendation. Mr. Bedford noted this area is not as well-known, but represents a great opportunity to take a leadership position both domestically and internationally. He asked for the recommendation to be consistent with the others and asked if it could highlight some of the benefits of using alternative fuels. Mr. Glover added that DOT and the Department of Agriculture recently signed a memorandum of understanding to work toward this recommended path.

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Mr. Bedford asked the subcommittee members if anyone knew what percentage of fossil fuels could be replaced by alternative fuels by 2020. Ms. Young suggested this figure may be 4–5 percent by 2020, but stressed this small number would be significant.

Mr. Bedford asked if the proposal explained why this was important to aviation. Mr. Glover pointed out much of the rationale and advantages of alternative fuels were placed in the background paper. Once this recommendation was edited and the facts were brought forward from the background paper, it would explain all of these issues.

Before Mr. Bedford left the meeting, Dr. Alonso asked him if he would give his input regarding the prioritization of the proposals. Mr. Bedford initially placed his priorities in the following order:

1. Operational and Infrastructure Improvements,
2. Research and Development related to Airframe and Engine Technologies,
3. Sustainable Alternative Aviation Fuels
4. Harmonized Sectoral Approach for CO₂ Emissions Reductions.

Mr. Bedford stated he thought Nos. 2 and 3 were interchangeable and added he had no strong preference for one over the other. Ms. Pickard asked Mr. Bedford if he ranked operational infrastructure as No. 1 because it could be implemented the quickest, even though it represented the lowest benefit for carbon emissions. Mr. Bedford confirmed that, but he also reminded the subcommittee they were looking for actionable items which could be done in 3 to 5 years. He also stated there was great uniformity among other subcommittees on the importance of NextGen.

Dr. Alonso stressed that all of the factual numbers should be taken into account in prioritizing the proposals. Even though some numbers may show a more immediate effect of one recommendation, the others may have a smaller number at first, but continue to grow and surpass the others after those 3 to 5 years.

Dr. Alonso continued on to the Harmonized Sectoral Approach for CO₂ Emissions Reductions recommendation. Mr. Glover suggested they could include more detail on the International Civil Aviation Organization (ICAO) resolution, which was not available at the time their proposal was written. Dr. Alonso also observed that many important facts from the background paper could be incorporated into the recommendation during the editing phase.

Dr. Alonso went over the writing assignments and stated he would send subcommittee members an email about their individual assignments. The subcommittee discussed the schedule and noted the formal recommendations were due to the DOT by November 22, 2010. Ms. Pickard and Mr. Glover acknowledged the schedule and thought there would be no problem in meeting all the dates.

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Dr. Alonso continued the meeting with more discussion on prioritization on the four focus areas. He stated, as did Mr. Glover, that he agreed with Mr. Bedford that Focus Area No. 4 should be Harmonization. Dr. Alonso reminded the subcommittee members of Mr. Bedford's list and polled members' input on prioritization.

Mr. Glover stated he agreed with the order Mr. Bedford suggested. Mr. Rick Pyatt, Goodrich, stated he thought the subcommittee would want to differentiate between the investments for R&D tax credits and the Administration's stimulus.

Mr. Brandewie agreed with the priority given by Mr. Bedford. Ms. Pickard pointed out the subcommittee may want to think a bit more about how they are looking at the proposals' prioritization. She added the members can look at prioritization either in terms of which areas can achieve the most benefits in carbon emissions reductions and energy improvements, or in terms of which areas can achieve the most immediate benefits. She suggested making the approach transparent so the full FAAC can see how the subcommittee arrived at its choices.

Mr. Baxter stated his priority would be operational, alternative fuels, technology, and harmonization.

Dr. Alonso stated when looking at the prioritization, he considered what would have the most environmental benefits. He added he was putting alternative fuels first, followed very closely by technology, then operational, with harmonization last. He noted there is an agreement among all the subcommittee that harmonization would be the last on the priority list.

Dr. Alonso noted there was a lot of momentum about operations and NextGen in the full FAAC and he thought there would probably be a highlighted NextGen recommendation from the entire FAAC. Ms. Susan Kurland, FAAC committee chair, DOT, stated they would wait until all the recommendations came forward before there would be any decision about a separate NextGen recommendation in the report. She noted even though initially the Secretary was looking for three or four recommendations, it would be good if the committee had consensus on many more recommendations that could be implemented.

Several subcommittees member agreed there should be an introduction explaining the logic behind the proposal prioritization, suggesting it show either the more immediate results or what would have the most environmental benefits.

Dr. Alonso asked the subcommittee members if there was any flexibility about changing the priority. He reminded the members that in an optimistic scenario the maximum fuel burn and related CO₂ reductions, for the entire fleet that could be achieved with NextGen operational and infrastructure measures, are probably in the range of 5-6 percent. Dr. Alonso stated the advertised 12 percent was an unrealistic number in his opinion. Mr. Glover noted the Air Traffic Association (ATA) has already stated almost 4 percent of the 12 percent figure has already been achieved with NextGen improvements, and only one-half of the remaining 8 percent would be achieved in the future. Mr. Glover added he has reconsidered his order of prioritization.

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Mr. Baxter stated his order would change depending on how the subcommittee decides what the priority criteria should be—whether it's based on what can be done the quickest or, what would achieve the most CO₂ reduction. Mr. Brandewie stated he was also changing his opinion on the prioritization of the recommendations.

Mr. Brandewie suggested the priority criteria should be based primarily on the most carbon reduction, the most impact in a five year window, and the best return on investment. Mr. Glover noted that if the subcommittee decides to change the priority, there needs to be more specific details in the alternative fuels recommendations in terms of what can be done by the Secretary.

Dr. Alonso asked the members if they wanted to hold another vote on the priority based on these discussions. After some further discussions the subcommittee members took another vote and placed the proposals in the following order:

1. Sustainable Alternative Aviation Fuels
2. Research and Development related to Airframe and Engine Technologies
3. Operational and Infrastructure Improvements
4. Harmonized Sectoral Approach for CO₂ Emissions Reductions.

The record shows that four out of the five subcommittee members agreed with this order with one member, Mr. Bedford, absent from the voting procedure. The subcommittee used what would achieve the greatest environmental impact as the criteria for the prioritization and felt an introduction of the criteria used should be included with the recommendations. Dr. Alonso offered to share the members' final prioritization with Mr. Bedford and poll his final opinion.

PUBLIC COMMENTS

Ms. Laura Gladding, President of the Association for Professional Flight Attendants, offered a comment via letter on the improvement of cabin air quality. The letter cited ventilation, reduced O₂ levels, quality of air supply, ozone exposure, and high concentration of pesticides. The subcommittee felt this was beyond the scope of what this subcommittee was considering and agreed this comment should be forward to the appropriate DOT and FAA staff dealing in such matters.

CLOSING REMARKS

Mr. Glover asked the subcommittee members to get their input to him as soon as possible. Dr. Alonso, closed the meeting in Mr. Bedford's absence, and stated that with further communication and possibly at the next full FAAC meeting, Mr. Bedford could get his vote on prioritization on the record.

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ACTION ITEMS

Assigned to	Action Item
Mr. Baxter	Input for the airport energy efficiency and emissions reduction recommendation
Mr. Glover	Breakdown the finances from the background paper on operational and infrastructure improvements
Dr. Alonso and Mr. Glover	Submit more input for the R&D technology proposal
Mr. Glover and Ms. Pickard	Edit all four proposals and submit in the recommendation format to the subcommittee

ADJOURNMENT

Dr. Alonso solicited a motion for adjournment. On motion, duly seconded and approved by the majority of the FAAC Environment Subcommittee members present, the meeting was adjourned.

The meeting adjourned at 11:55 p.m.

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

Approved by: 
Lynne Pickard, Designated Federal Official

Dated: February 8, 2011