

**TRB AV030(1) Environmental Impacts of Aviation Sustainability Subcommittee  
Meeting Minutes  
July 24, 2007  
TRB Offices, Washington, DC**

Action items are underlined. Research ideas are **highlighted**.

**Participants**

*By Phone:*

Brian Kim, Wyle Labs  
Judith Patterson, Concordia Univ.  
Sam Mehta, SFO  
Kristin LeMaster, CDM  
John Putnam, Kaplan, Kirsch, & Rockwell  
Roger Johnson, LAWA  
Lisa Grice, CH2M Hill

*In Person:*

Max Wolfe, Jacobs Consultancy  
Darcy Zarubiak, Jacobs Consultancy  
Kerr Lammie, Stantec  
Burr Stewart, Port of Seattle  
Jessica Steinhilber, ACI-NA  
Suzanne Berman, MWH  
Carol Lurie, VHB  
Christy Gerencher, TRB  
Mary Ellen Eagan, HMMH  
Leo Roy, VHB  
Gail Staba, TRB

**1. Welcome and Introductions**

Burr Stewart, Subcommittee Chair, welcomed participants. He reaffirmed that the purpose of this Subcommittee is to develop a research agenda for aviation sustainability. ACRP projects are currently underway to develop a sustainability benchmarking study and a guidebook for developing airport greenhouse gas emissions inventories. The goal of the meeting is to continue working on the research agenda and plan for the TRB annual meeting in January. Minutes from the May meeting in Denver were distributed prior to the meeting.

**2. Committee Work Program Updates:**

a. *Status of ACRP Synthesis Project* (Gail Staba)

A survey for the project was distributed about 3 months ago. About 25 out of 35 airports responded to the survey. A draft report is expected by the end of next week. The panel will review the report and meet in early September to finalize the report. It should be published in January. It will show what different airports are doing in sustainability. The report will be accessible online and in hard copy. It will also be posted on the subcommittee website.

b. *Communications/Website* (Mary Ellen Eagan)

A website has been set up under the AV030 website ([www.trbav030.org](http://www.trbav030.org)) but it has very little content. Mary Ellen and Jennifer Salerno are collaborating on content. They will coordinate with Holland Young on additional content. Minutes and agendas from previous meetings will be added.

- c. *Research Topics Database* (Brian Kim)  
Brian has collected topics and sent them to John Pehrson for inclusion in the database. The Subcommittee will look at the Sustainability Synthesis Project Report when finalized to identify additional research ideas.
- d. *Graphics*  
Jennifer Salerno was not in attendance so no report.
- e. *Modeling and Economics*  
Larry Gray was not in attendance so no report.
- f. *EMS/SMS/ISO14001* (Darcy Zarubiak, Roger Johnson, Jenn Salerno)  
Two important issues associated with management systems are boundary issues and metrics. Setting the boundary on airport (or any entity undertaking a management system) responsibility and control is important because managing environmental measures beyond their control can be challenging and problematic. Roger reported that LAX's sustainability program reaches all sources at the airport, including tenants. Airports' ability to leverage tenants is being pushed. The organization governance body may impact the boundary conditions at each airport.

Metrics - it is easiest to go after things already being measured. That is often done through the finance department more than environmental department.

Sustainability Management Systems – organizational sustainability structure that overlays the airport organization to incorporate sustainability into the entire business operation. Roger will email a copy of a presentation and document on LAX's SMS to Burr for distribution to the Subcommittee. Darcy suggested decoupling EMSs from SMSs. EMSs are tactical and compliance focused, and SMSs are strategic.

It may be considered misleading from a public perspective when an airport limits its boundary/environmental footprint to those things within its direct responsibility (e.g., not include aircraft emissions). At least addressing what those other sources of environmental impacts are can help alleviate that problem.

Other entities within the aviation industry aside from airports are exploring EMS/SMS, including airlines. The question arose as to how these various management systems interact with each other. The U.K. has a sector sustainability guidebook that may be helpful.

Software program is needed for searching/tracking EMS at airports. Existing programs may work for complicated corporate structures, but not for airports.

Management systems need to ensure they do not contradict other processes such as NEPA.

Research needed on boundary and metrics for SMSs/EMSs, including how they are coordinated with other entities and regulators. National EMS under consideration as part of NextGen, but FAA is very far from articulating what it would take. Research could be undertaken to help develop the concept of a National EMS. Total cost of ownership over the life-cycle may be a different way to look at responsibility.

- g. *Membership/Recruitment Ideas & Volunteers (All)*  
WRI  
NASAO  
Roger Johnson now included  
More airline participation, ATA – Tim Pohle. Jessica will send his contact information to Burr.  
Emanuel Flueti  
Consider the companies that responded to the GHG ACRP project RFP  
IT sector  
Sam Mehta will contact Virgin Airlines  
Suzanne Berman will contact United Airlines
- h. *Paper Review Process (Christy Gerencher)*  
Paper Due dates are: non-pdf = July 27; pdf = August 1.  
Committees will be notified within the first couple weeks of August regarding papers to review. Reviews are due by Sept. 15.

### 3. **Research Needs Topics Review**

- a. *FY08 ACRP Projects Selected (Christy Gerencher)*  
ACRP Administrative Oversight Committee met over the weekend. 20 projects selected including 4 quick response projects. Legal aspects program re-uped. Synthesis re-uped at \$500,000 – topics to be selected in November. \$10M allotted until Congress determines whether to add \$5M for environmental projects. Panel solicitation will begin in August.

Projects selected:

- Estimating national use of deicing materials – quick response. Hope to be done by end of the year.
- Enhanced modeling of aircraft taxiway noise – quick response for inclusion in INM.
- Tentatively approved – quantifying contribution of aircraft emissions. AOC to review RFP before finalized.
- Developing comprehensive workplan for multimodal emissions model.
- Analysis and BMP for preventing wildlife strikes at small airports.
- Conduct long-term research needs workshop in January.

- b. *BOS Annual Report – Sustainability Survey* (Carol Lurie)  
Survey conducted by VHB to see how BOS compares to other airports in regards to sustainability. Different airports are focused on different metrics. Looked at many metrics including air, water, energy, etc. The document will not be published, but most airports are included in the ACRP sustainability synthesis report.

SFO Sustainability Report to be published in mid-August.

A template for a sustainability plan may be helpful in assisting airports in developing a sustainability program. The template should be flexible enough to accommodate localized concerns and goals.

- c. *Sustainable Development Definition Paper*  
Howard Aylesworth distributed prior to the meeting but could not attend.  
How do we work across other transportation sectors to look at how to move people and goods in the most sustainable manner? Could co-sponsor sessions at the annual meeting or liaison with environmental rail and marine committees or propose CRP projects (ACRP, Freight CRP). Sustainable transportation has its own boundary and metric issues.

- d. *The Future of Sustainability Slides* (Burr Stewart)
- Asset Management Systems – synthesis on what is being done across the industry, IFMA. Research to look into whether life cycle analysis assumptions are accurate.
  - Sustainability Plans – already thoroughly discussed.
  - Third-Party Validation/Certification – What is the driver behind certification? Public/government pressure? Internal drivers? Overall it provides credibility.
  - NGO Participation – National NGOs have not focused on aviation as much as local/global NGOs. The environmental benefit associated with heavy involvement is not seen in their eyes (more focus on e.g., coal). If they have not prioritized aviation, it will be difficult to get them engaged. LAX coalition includes many NGOs. There are pros and cons to their involvement.
  - Community Forums and Shared Databases – “talk to one another.”
  - Common Terminology, Messaging, and Branding
  - System-wide EMS Approaches
  - More radical scenarios
  - Global Data Structures
  - System Dynamics Modeling
  - Global Regulations
  - More radical solutions

- e. *Mapping of Research Topics*  
Jessica and Burr will incorporate into the minutes.  
Include research project on existing aviation carbon offset programs. Two research papers have been done on this issue. Darcy will send links to Mary Ellen for inclusion on the website. Will also be addressed by one of the sessions at the TRB Annual Meeting.

4. **TRB Annual Meeting**

- a. *Sustainability Workshop*  
Sunday, January 13, 2008, 1:30 PM – 5:00 PM at Omni Shoreham  
The session will feature examples of what different entities think sustainability is and how they have implemented it. Examine how each entity addressed boundary and metric issues. Guided panel discussion at the end.

Suggested Speakers:

Sam Mehta, SFO (or Leo or Carol)

Roger Johnson, LAWA

Steven Davis-Mendelow, Bombardier (or Billy Glover, Boeing or Will Dodds, GE) – Darcy will do

Cheryl Koshuta, PDX

Katherine Barker, Heathrow

Callum Thomas, Manchester

Emanuel Fluetti, Zurich

Ask Tim Pohle about possible airlines – Jessica will do

FAA speaker, NextGen – Darcy will talk to Lynne Pickard

SeaTac Sustainable Asset Management

Another industry (rail, marine) – Port of Seattle

Virgin Airlines, British Airways, etc. – Suzanne will talk to IATA about other airlines.

Speakers to be set by the end of August. Session details due to Christy by Oct. 1.

- b. *Other sessions at TRB Annual Meeting*
- Global climate change workshop also being held Sunday afternoon.
  - The Subcommittee will also meet at the meeting.

5. **Meeting Adjourned**