

NATIONAL RESEARCH COUNCIL
TRANSPORTATION RESEARCH BOARD

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TRB Committee - Environmental Impacts of Aviation – AV030
Meeting Minutes
January 11, 2005
10:30 a.m. – 12 noon

Meeting Location: TRB 84th Annual Meeting
Omni Shoreham
Washington, D.C. 20001

1. Attendance.

See attached.

2. Welcome and Introductions

Burr Stewart sat in as acting chair of the committee. Mr. Stewart welcomed all to the meeting on behalf of Dan Wormhoudt. Following the welcome, Mr. Stewart provided a description of the meeting handouts provided to each participant. Introductions were made around the table. The attendance/sign in sheet was sent around. The sheet was revised to include information on attendees' interest in aviation, technical discipline areas, and activities on other committees. Roger Johnson volunteered to write meeting minutes due to Peter Gray-Mullen's absence.

3. Adoption of Agenda and Meeting Minutes

The agenda for today's meeting and minutes from the last meeting were approved.

4. Summary of Subcommittee Reports

Membership – Mr. Stewart introduced Darcy Zarubiak as the head of a newly formed membership committee. Mr. Zarubiak introduced the role of the membership committee as follows:

1. Identify the activities of the existing members, identifying those who may not be participating;
2. Identifying individuals interested in becoming a member of the committee.
3. Ensuring a diversity of membership on the AV030 Committee (e.g. Airports, Airlines, Consultants, FAA, etc.)

A participant requested to know the existing subcommittees. They were identified as:

- Annual Meeting
- Membership
- Website
- Mid-year Meeting
- Publications
- Strategic Planning (Steering)

Publications – Richard Burke was introduced as the head of the Publications Subcommittee. The “Critical Issues in Aviation and the Environment” publication was discussed. Richard stated that the circular was intended to be an annual publication. The Committee agreed that this should occur. The following individuals agreed to participate in preparation of the next Circular. Richard stated that he would develop a schedule for preparation of the next Circular with respective topics.

- Noise Mary Ellen Eagan
- Air Quality & Tools Julie Ann Draper
- Water Quality Richard Davis
- Process John Putman (Richard will confirm with John)
- Technology Deployment Richard Altman

Website – Mary Ellen Eagan presented a brief discussion on the new website. The website address is www.trbav030.org.

Mid-Year Meeting – John Pehrson presented plans for the mid-year meeting. The summer meeting will be held on Wednesday May 18th, 2005 in San Diego at the Westin Horton Hotel. Mary Ellen Eagan has been coordinating with the San Diego Airport. The airport will provide meeting rooms for the Committee. The meeting will be sandwiched between the ACI Joint Environmental Affairs/Technical Affairs Committees spring meeting and a DoD/FAA meeting on Aircraft Engine Particulate Matter (PM Roadmap) on the 19th. Mr. Stewart indicated that the purpose of the Mid-year meeting is to help focus the Committee on research topics.

5. Aviation Section Remarks

Larry Keirman provided a summary of the Airport Cooperative Research Program. Mr. Keirman told us that this would include \$3 million for research this year and up to \$10 million next year. The Airport Cooperative Research Program is a new program authorized at \$10 million a year. The objective of the program is to meet a need for research in aviation. The Program will look primarily at land side impacts/issues. The Program has collected 90 problem statements as potential ideas for research. These 90 statements represent approximately \$30 million in costs, consequently all of them will not be funded. The program will be governed by a governing board appointed by the Secretary of Transportation. There will be approximately 9 members, including many airport managers, at least three from large hub airports. This committee will determine which projects get funded.

Depending on funding, the technical committees will then be formed that lead research programs in aircraft deicing, land use restrictions around airports, identifying aircraft emissions and other areas not directly related to environmental impacts.

Mr. Keirman said there are three ways of getting involved in this program: 1) Submit a potential research project; 2) Sit on a panel; and 3) Participate as a contractor working on a project.

A high emphasis will be placed on the ability to get the information from the research projects out to industry where it can be used. Mr. Keirman gave an example of several studies performed to look at access constraints to airports. He indicated that these studies were very well done but were not well known by many airports.

Minutes

Annual Mtg. January 2005

AV030 - Environmental Impacts of Aviation

A question regarding emissions research was raised. The question was whether TRB would partner with others to leverage the money. Initially Mr. Keirnan believed that TRB would not be interested in partnering initially but may be in following years.

Carl Burleson from the FAA gave a brief discussion on the FAA's Center of Excellence (COE). They now have over 28 university partners involved. They have completed a number of studies including a study of aircraft particulate matter and another on low frequency noise.

The FAA has created an award for students involved in research in aviation. The award is \$5,000.

John Fisher provided a summary of TRB and Legislative Activities. Mr. Fisher attended the TRB Technical committee meeting. He commented that there are not a lot of things coming out of TRB that the AV030 committee needs to be aware of. TRB's committees are encouraged to include young members: Young members are defined as members under 30 years of age. John mentioned that young members do not count in the total committee membership. Committees are also encouraged to include international members. Citizens of Canada and Mexico do not qualify as international members under TRB policy.

The proposed theme for next year's TRB meeting is: "Transportation in 2025 and how do we get there from here".

Mr. Fisher commented that there were many changes in Congress and it's unclear what issues Congress may take up this year. Many of the Senate leaders in aviation have been term limited. The entire majority staff on the aviation committee has been changed.

A question was raised on the Joint Planning and Development Office (JPDO). Under the FAA Reauthorization Act, the JPDO was given a year to get a plan developed. A plan was delivered to OMB: John could make no predictions on what he believed Congress would do with the plan. The Plan called for the creation of several Integrated Planning Teams (IPT). Carl Burleson was identified as heading up the IPT on the environment.

Carl Burleson was asked to present the IPT on the environment. Mr. Burleson indicated that the JPDO plan starts with the assumption that the US will need three times the capacity that exists today. Given that assumption, the plan focused on what needs to be done today? What needs to be started?

When looking at the above questions, the environment was a key element of the strategy. Carl indicated that this focus will give his office a key role in moving forward. It does however, create some key challenges.

Issues are very different depending upon the future scenarios, e.g. Large aircraft at hubs vs. Microjets at regional airports.

Mr. Burleson indicated that another study was set up asking the FAA and NASA to look at technologies to improve noise, air emissions and fuel burn. The first meeting of the IPT chairs will be held within the next month. FAA will be looking for participation from some portions of the TRB AV030 committee.

Carl indicated that this is a new process for the FAA: transition from regulating the industry to helping shape the industry. The JPDO study is on the website www.jpdo.aero/site_content/ngats_v1_1204.pdf.

6. Proposed Research Topics

Mr. Stewart invited meeting attendees to share their thoughts on what the AV030 committee should focus on. Mr. Stewart indicated that one reason for this is to encourage the development of papers by encouraging research in the area of aviation environmental impacts by academic institutions. Mr. Stewart also discussed the need to increase collaboration between committees.

Mr. Stewart introduced a list of proposed research topics that the AV030 Steering Committee had developed. (See below). In addition to these, Mr. Stewart requested additional potential topics from the meeting participants. The following were suggested as potential research topics:

1. Environmental Process issues. Looking at different ways to conduct the process. "The space between the points, non-linear approaches to the environment"
2. Focus on development of metrics that best describe noise, air, impacts, etc.
3. ADC30 is studying performance measures and/or land use and access. It was suggested that the AV030 and ADC30 committees have a joint meeting.
4. An endorsement of the "Green Machine" concept. (What is green? What are the tradeoffs?)
5. Emerging issues: provide an early indication of new issues. Possibly including those coming from other modes.
6. A session on 2025 issues including:
 - Land use
 - Local Air Quality
 - Climate Change
 - Technology deployment - noise/air/emissions
 - Sustainability (If we can define it)
 - (The FAA is releasing a primer on air emissions and it's available at www.aed.faa.gov)
7. Legal & health related decisions
8. Tradeoffs in airport design and regulations
9. Market based options
10. Impact of Micro-jets
11. Endangered and invasive species
12. Air toxics and hazmat flame retardants and other toxicities in the environment
13. Balance between access to aviation transportation & environmental objectives (policy, demand issues)
14. Public support strategies, perceptions, behavior
15. Bird aircraft strike hazards (BASH)
16. The airport boundaries and political accountability (balanced approach) new levels of collaboration
17. Natural resources stewardship and joint development of airport properties (airport as wildlife refuge)
18. Ground transportation impacts and implication
19. Land use and access - joint meeting with AV050
20. EMS's cross-sector
21. Environmental performance metrics: Comparative metrics with other modes and industries
22. Water quality
23. Deicing technology
24. Air quality (interior, exterior, high altitude, etc)
25. Operational efficiencies, environmental implications of congestion relief, etc
26. Travel demand scenarios and elasticity's and future demand implications
27. Harmonization of global air/noise/emissions metrics

Minutes

Annual Mtg. January 2005

AV030 - Environmental Impacts of Aviation

Mr. Stewart reminded all that it is important to coordinate and understand what Europe is doing, and to expect similar issues in U.S. Christine Grenecher talks with European counterparts and they are aware that our TRB Committee is active. Katherine Andrus suggested that the CAEP process be a topic for the mid-year meeting. John Bradley commented suggested making liaison as he is on the Alternative Fuels committee. Katherine suggested a possible joint session at next year's annual meeting.

Marcia Brown, who works with the Marine and Ground Transportation committees as well the Environmental Analysis Committee AV030, offered to send us a copy of this committee's most recent report.

The marine environmental task force is updating their research papers. This includes marine benthic impacts, and other issues not affecting aviation. However, they also are concerned about noise and air quality impacts.

7. Announcements

Gregg Fleming provided information on an International Workshop hosted by the University of Central Florida.

The University of Texas is offering a short course on Airport Noise and Air Quality.

8. Other Business/Adjournment

Mr. Stewart closed the meeting at 12:15 and thanked all for attending. He requested volunteers and help with Committee responsibilities.

Respectfully submitted,

Peter J. Gray-Mullen
Secretary

Attachments (attendance list, agenda)

ARD - 2005 ANNUAL MEETING - COMMITTEE ON ENVIRONMENTAL IMPACTS OF AVIATION (AV030)
 OMNI SHOREHAM HOTEL, WASHINGTON D.C., TUESDAY, JANUARY 11, 2005
 ATTENDANCE SHEET

Other committees
(member/friend)

Post-It™ brand fax transmittal memo 7671 # of pages >
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 Dept. Phone #
 Fax # 617 568-3565

Professional | Interest | Expertise
 PHONE-MAIL-NAME

NAME	MAILING ADDRESS	E-MAIL ADDRESS	CURRENT MEMBER / FRIEND INTERESTED?	OTHER MEMBER / FRIEND
Darcy Zarubick Sr. Consultant	Leigh Fisher Associates 555 Airport Blvd # 300 Burlingame CA 94010	darcy2@leighfisher.com	member	No Other TRB
David Bell Editor, Aviation + Env. News Noise Regulation Report	Now Address: 2350 Tague Ave. Glenview PA 19038	info@noise-report.com	friend	
Richard Burke Kennedy Jenks	707 Wilshire Blvd Suite 3200 Los Angeles CA 90017	richard.burke@ kennedyjenks.com	member	NAEP
Gregg G. Fleming U.S. DOT/Volpe Center	55 Broadway Cambridge, MA 02142	fleming@volpe.dot.gov	friend	ADC-20 ADC-40 SAC A-21 PARTNER
Jennifer Bihl Engineer	Kimley-Horn and Associates, Inc. 1820 East Park Avenue, Suite 100 Tallahassee, FL 32301	jennifer.bihl@kimley-horn.com	interested	AV050 member
Jennelle Demickson Consultant	FAA Technical Center Bldg 900 Airport & Aircraft Safety R&D Atlantic City Arpt, NJ 08045	jennelle.demickson@faa.gov	member	ABG 10 ABG 30 member

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TRANSPORTATION RESEARCH BOARD - 2005 ANNUAL MEETING - COMMITTEE ON ENVIRONMENTAL IMPACTS OF AVIATION (AV030)
 OMNI SHOREHAM HOTEL, WASHINGTON D.C., TUESDAY, JANUARY 11, 2005
 ATTENDANCE SHEET

Other committee
 (Member, Friend)

NAME AND TITLE	ORGANIZATION AND MAILING ADDRESS	PROFESSIONAL Background/Work Experience	E-MAIL ADDRESS	CURRENT MEMBER / FRIEND INTERESTED?
Nickolas P. Miller Senior VP	Worce Miller Miller & Hansen Inc 15 New England Executive Park Burlington, MA 01803	Noise as constraint on Community response to noise Noise modeling measurement	NMiller@hmmk.com	Friend
MICHAEL McNEURNEY DMJTM AVIATION ASSOC VP	DMJTM AVIATION 1200 Summit Ave Ste 320 Fort Worth TX 76102	Noise, Air Quality Modeling	Mike.McNeurney@ dmjtmaviation.com	Member
DAVID NIELSON CHIEF ENGINEER FOR AIRPORT STRATEGY BOEING COMMERCIAL AIRPLANE VP. AIRPORTS COUNCIL INT'L North America	THE BOEING COMPANY PO BOX 3707 MC OR-MA SEATTLE WA 98124-2707	AIRCRAFT DESIGN	david.j.nielson@boeing.com	Friend
JAN REDHEAD VP. AIRPORTS COUNCIL INT'L North America	1775 K STREET NW SUITE 500 WASHINGTON, DC 20006	ALL ASPECTS OF ENVIRONMENTAL IMPACTS ON AVIATION	iredhead@aci-na.org	MEMBER
Anthony Peet, Professor University of Calgary	no change from cte. roster	Transportation policy and environmental policy sustainable transportation	apeet@ucalgary.ca	Member
KEISTI MCKENNEY MANAGER, AVIATION PLANNING AND DEVELOPMENT	OAKLAND INTERNATIONAL AIRPORT PORT OF OAKLAND 530 WATER STREET OAKLAND, CA 94607	Implementation at airports incorporation in physical planning Sustainability	kmckenne@portofakland.com	Member
RICHARD ALTMAN MANAGER, BUSINESS DEVELOPMENT, ADVANCED ENGINE PROGRAMS	PRATT & WHITNEY 400 MAIN ST P.O. BOX 1100 FAIR HARTFORD, CT 06118	AIRCRAFT ENGINEERS TECHNOLOGY INSERTION 'GREEN' PROGRAMS	Richard.Altman@PW. UTC.COM	Member

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OMNI SEOREHAM HOTEL, WASHINGTON D.C., TUESDAY, JANUARY 11, 2005

ATTENDANCE SHEET

Other Committee Members
(members) Join

NAME AND TITLE	ORGANIZATION AND MAILING ADDRESS	PROFESSIONAL INTERESTS	E-MAIL ADDRESS	CURRENT MEMBER / FRIEND / INTERESTED?
RICHARD S. DAVIS, DIRECTOR + OWNER OF WATER PRACTICE GROUP	BEVERIDGE & DUNHAM P.A. 1250 I STREET, N.W. WASHINGTON, D.C. 20005	Professional Interest / Expertise - WATER LAWYER - AIR QUALITY ISSUES - STATE WATER PERMITTING - REGULATION - WATERWAY INFRASTRUCTURE FINANCING	rdavis@bdlaw.com	Member (2d year)
John Peterson	See "Friends" Roster	- Aircraft AP Impacts - Particulate Matter, Hazardous - Airport AP Impacts - Air Quality Sources & Ground Transportation - Integration of AP & Noise		Friend Move to Member
JULIE DRAPER	MEMBER ROSTER	- AVIATION AP - AVIATION NOISE	JULIE.DRAPER@FAA.GOV	MEMBER
Pamela Vanderbilt	CH2M HILL - see business card	Air Quality Health Risk Assessment	Prandertb@cham.com	Friend
Roger Johnson	COM	Air Quality, Noise, Water Quality, NEPA, Hazardous Materials	Johnsonra@com.com	Friend / Interested
Mary Ellen Eagan	HMMH	Noise, NEPA	megan@hmmh.com	MEMBER
Maria Eichel	VHB	Env. Policy/ streamlining Trade off w/ other mode	mengel@vhb.com	friend

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LEIGH FISHER ASSOCIATES

Other Committee member friend

NAME AND TITLE	ORGANIZATION AND MAILING ADDRESS	E-MAIL ADDRESS	CURRENT MEMBER/FRIEND INTERESTED?
Marca Boer	Norman Associates	mboer@normanassoc.com	ADC 30 ADC 30T Friend
Robert Sullivan	Dept for Transport UK Scientist Deputy Scientist	Environ. Effects passenger rail mailing address	Mar, inc environmental task force Guided interest by passenger rail
Beth Hyde	Environ. Scientist Roy Associates, Inc	Robert.Sullivan@ dft.gsi.gov.uk	would be interested in joining committee -
Carol Lane	VHB	bhyde@royinc.com	not currently a member
Mark Lang	VHB	clume@vhb.com	ACC Environ Chair
JONATHAN FEINSTEIN	VHB	J.FEINSTEIN@ VHB.COM	would like to be a friend
Chris Grant	ERAU	grantch@erau.edu	APC20 member

**TRB Committee AV030
Annual Committee Meeting
January 11, 2005
Omni Shoreham Hotel**

**Exhibit Hall A
10:15 a.m. to 12:00 p.m.**

Agenda

Welcome and Introductions	Burr Stewart	10 minutes
Aviation Section Remarks*	Joe Breen, John Fischer	10 minutes
Adoption of Agenda, Review and Approval of Minutes	Burr Stewart	5 minutes
Summary of Committee Activity in 2004	Burr Stewart, Subcommittee Chairs	20 minutes
New AV030 Website	Mary Ellen Eagan	10 minutes
Mid-year Meeting Planning	John Pehrson	10 minutes
Steering Committee Report and Recommendations	Steering Committee	30 minutes
Other Business		
Adjournment		

**Indicates a tentative time.*

Aviation Section Remarks by Joe Breen and/or John Fischer may occur later in the meeting.