

**REDAC - Subcommittee on Environment and Energy**  
**MEETING MINUTES**

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**Meeting Date:** March 26-27, 2013

**Meeting Location:** Volpe Transportation Center, Cambridge MA

**Purpose** Environment & Energy Subc.  
Guidance & Review for FY 2015  
R&D Budget

**Facilitator** Jim Hileman, FAA, DFO

**Note taker** Jim Hileman

**Minutes from Day 1 – March 26, 2013**

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**Presentation** *What's New in AEE* | **Presenter** *Lourdes Maurice*

**Discussion** – Lourdes gave an update on new items in AEE. This includes new hires and the E&E Review that was held in accordance with FAA Reauthorization Section 912.

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**Presentation** *REDAC Vision* | **Presenter** *John Wiley*

**Discussion** - John discussed some changes in how the REDAC will be operating based on the outcomes of the REDAC Working Group. John also made some requests for the E&E Subcommittee in regards to the April 24 meeting that are listed as an action item below here.

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<b>Action items</b>	<b>Person responsible</b>	<b>Deadline</b>
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Provide question and comments for Administrator and Associate Administrators for full REDAC meeting on April 24.	Steve Alterman	April 1
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**Presentation** *Response to REDAC Recommendations/Findings* | **Presenter** *Jim Hileman*

**Discussion** - Jim went through Spring 2012 and Autumn 2012 Recommendations and Action Items.

**Conclusion** – All recommendations were closed out. All action items were marked as complete except for a briefing that provides an overview of the ACRP Program. The Subcommittee did not request a briefing so this action was also closed.

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<b>Action items</b>	<b>Person responsible</b>	<b>Deadline</b>
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Examine membership list and remove those who have	Jim Hileman	August 1
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Action items	Person responsible	Deadline
not been in attendance over an extended period of time		

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**Presentation** FY13/FY14 Budget Update | **Presenter** *Mike Gallivan*

**Discussion** - Mike presented on the FY13 president's request, the FY14 process, and the impacts of CR/sequestration.

**Conclusion** - There is considerable uncertainty and we are waiting for clarity on the budget.

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**Presentation** FY15 Program Proposal | **Presenter** *Mohan Gupta*

**Discussion** - Mohan presented the FY15 program plan.

**Conclusion** - The subcommittee was supportive of the plan and the above target request.

Action items	Person responsible	Deadline
Change box plots to have "FY15 Milestones" and not "FY15 Accomplishments." Item was resolved during meeting and briefing was reposted on KSN under new name.	Mohan Gupta	March 27
Fix math entry on FY13 budget and change above target entries to note where the line item that includes this item. Item was resolved during meeting and briefing was reposted on KSN under new name.	Mohan Gupta	March 27

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**Presentation** CAEP Update | **Presenter** *Lourdes Maurice*

**Discussion** Lourdes discussed outcomes from the recent CAEP/9 meeting, noise stringency, and the CAEP/10 work plan for CO2 emissions and PM emissions.

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**Presentation** COE Update – Setting the Scene | **Presenter** *Jim Hileman*

**Discussion** - Jim presented an update on recent accomplishments and future plans with the existing PARTNER COE as well as the plans for the new COE for Alternative Jet Fuels and Environment.

**Conclusion** - The subcommittee expressed much interest in providing input on the new COE. The discussion focused on the Advisory Board for the new COE and it led to a recommendation.

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**Presentation** REDAC Roles and Responsibilities | **Presenter** *Cathy Bigelow*

**Discussion** - Cathy reminded everyone about the roles and responsibilities for the REDAC and how this applies to the E&E Subcommittee.

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**Presentation Noise – Update and COE Tech Areas | Presenter Rebecca Cointin**

**Discussion** - Becky provided an update on the Noise Program and presented the Noise Technical Areas within the COE Solicitation.

**Conclusion** – If FAA wants input before the next REDAC E&E meeting, Steve offered to set up a meeting with interested members to go over progress in the roadmap. Else, it can be covered during August meeting – see action item. The Subcommittee thinks that the list of tech areas is good in encompassing a wide area.

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Action items	Person responsible	Deadline
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Set aside two hours for noise roadmap within the agenda for the next Subcommittee meeting – one hour for briefing and one hour for questions. Sandy, Ian, and Katherine will provide feedback with the airport perspective.	Becky Cointin	August 1
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**Presentation Emissions – Update and COE Tech Areas | Presenter Ralph Iovinelli**

**Discussion** - Ralph provided an update on the Emissions Program and presented the Emissions Technical Areas within the COE Solicitation.

**Conclusion** – The subcommittee was very complimentary of Slide 6 as it shows how research is being used in the real-world. The subcommittee thinks AEE deserves credit for the work it has done on emissions and in moving research forward.

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Action items	Person responsible	Deadline
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Be prepared to set up calls with the REDAC Subcommittee to deal with pop-up issues that arise between REDAC Subcommittee meetings. Noise Roadmap review could be one of these.	Jim Hileman	August 1
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**Presentation Tools – Update and COE Tech Areas | Presenter Mohan Gupta**

**Discussion** - Mohan provided an update on the Tools Development work and presented the Tools Technical Areas within the COE Solicitation.

**Conclusion** - One of the committee members noted that AEE should provide additional credit to NASA on slide 4 as they are also providing funding to all of the underlying modules within EDS.

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**Presentation Operations – Update and COE Tech Areas | Presenter Pat Moran**

**Discussion** - Pat provided an update on the Operations Roadmap and presented the Operations Technical Areas within the COE Solicitation.

**Conclusion** - There was some discussion on how AEE interacts with others in FAA. Subcommittee thought there was good interaction between AEE and other agencies within FAA who are developing operational procedures.

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**Presentation Aircraft Tech – Update and COE Tech Areas | Presenter Rhett Jefferies**

**Discussion** - Rhett provided an update on the CLEEN Program and presented the Aircraft Technology Technical Areas within the COE Solicitation.

**Conclusion** - The subcommittee is very supportive of this work and asked for an updated fact sheet on its progress. If possible, they would like this to include industry implementation of the technologies. This discussion led to a recommendation.

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Action items	Person responsible	Deadline
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Update the CLEEN one page fact sheet to include latest successes and industry implementation (if possible). Determine additional means of conducting outreach on CLEEN and its successes.	Rhett Jefferies	August 1
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**Presentation Alternative Jet Fuels – Update and COE Tech Areas | Presenter Rhett Jefferies**

**Discussion** - Rhett provided an update on the alt jet fuels research and presented the five Alt Jet Fuels Technical Areas within the COE Solicitation

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**Presentation Previous Year Budgets (within Section 912 Briefing) | Presenter Mohan Gupta**

**Discussion** – Mohan presented FY09 to FY12 budgets broken out by strategic pillar. These were within the Section 912 briefing that was provided as read-ahead materials.

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Action items	Person responsible	Deadline
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For future meetings, develop budget pie charts that give skeleton for coming years in addition to historical break-outs.	Mohan Gupta	August 1
Refine how budget is divided in previous year budget pie charts to improve clarity.	Mohan Gupta	August 1

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**Presentation NextGen Environmental Management System | Presenter Don Scata**

**Discussion** - Don provided an update on the research being conducted under the Goals and Targets Benefits Analysis, the development of an AEE-wide Strategic Plan, and the process to solicit stakeholder input via the NextGen EMS.

**Conclusion** – The subcommittee asked FAA to provide additional details on this analysis – see action item.

Action items	Person responsible	Deadline
Refine the underlying assumptions in G&T Benefits Analysis (particularly for alt fuels) and improve the manner in which the data is presented to appropriately give caveats. Report on these at the next REDAC E&E Subcommittee Meeting	Jim Hileman	August 1

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**Presentation Operations Research Update | Presenter Pat Moran**

**Discussion** - Pat provided an update on the research being conducted on operations within AEE.

**Conclusion** – The subcommittee asked FAA to check on other work on UAS – see action item.

Action items	Person responsible	Deadline
AEE should reach out to other areas of FAA to know what all is happening in UAS space to ensure efforts are well aligned.	Pat Moran	August 1

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**Presentation CAEP CO2 Analysis | Presenter Ralph Iovinelli**

**Discussion** - Ralph provided an update on the analysis that is being done to support the development of a CO2 standard.

**Conclusion** - The FAA have done great work here and they need to keep this effort going.

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**Presentation Noise Survey| Presenter Becky Cointin**

**Discussion** - Becky provided a research update on the national airport noise survey.

**Conclusion** - The subcommittee recommended that FAA continue to work on their communication plan with the stakeholders involved, especially with regards to the airports that will be a part of the survey. See action items.

Action items	Person responsible	Deadline
Provide a briefing on the noise survey at the next Subcommittee meeting.	Becky Cointin	August 1
If possible, have AEE participate during the noise survey briefing that takes place within the next Airports Subcommittee meeting.	Becky Cointin	August 1

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**Presentation ACCRI Program | Presenter Daniel Jacob**

**Discussion** - Daniel provided an update on the ACCRI research program. There was much interest in what will follow on once ACCRI completes its report.

Action items	Person responsible	Deadline
Provide a briefing during next REDAC subcommittee meeting about the recommendations that came from the ACCRI report on what are the most pressing needs in regards to aviation climate research.	Rangasayi Halthore	August 1

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**Presentation Emissions Measurements | Presenter Daniel Jacob**

**Discussion** - Daniel provided an update on ongoing PM emissions measurements and the process of developing an internationally agreed-upon measurement system via SAE E-31.

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**Presentation NASA Update | Presenter Jay Dryer**

**Discussion** – Jay discussed recent reorganization of Fundamental Aeronautics and other progress at NASA. Budget uncertainty limits how much detail he can give though. Jay focused on vehicle side of the equation, but there is also much going on with ATM/operations side of NASA.

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**Discussion Recommendation Development | Lead Steve Alterman**

**Discussion** – Steve led a discussion on the recommendations. During recommendation development, some additional action items came up that are captured below.

Action items	Person responsible	Deadline
Encourage EPA participation at the next REDAC E&E meeting – not a briefing, just participation – if possible, give an update on what is new with their org and regulations	Jim Hileman	August 1
Set up agenda with two full days to share with full committee	Jim Hileman	June 1
Ensure that briefings are high level - go with fewer slides, not more – focus on the fact “you are splitting the atom, but not providing the details on how it is being done”	Jim Hileman	August 1
Provide a high level overview on FAA research that shows interconnectivity of science, tools, mitigation measures and decision-making within AEE R&D Portfolio	Jim Hileman	August 1
Incorporate NASA ATM work within the NASA briefing	Jay Dryer	August 1

**Subcommittee Discussion of Open Recommendations:** All recommendations were closed by the members.

**Next Meeting:** August 6-7 in Washington DC at Airlines for America.

Meeting was adjourned at 2:00 pm on Tuesday, March 27, 2013.

### **Attendance**

#### **Members:**

Steve Alterman (Chair)	Leslie Riegler	Don Wuebbles
Charles Etter	Dimitri Marvis	Darcy Zarubiak
Mahendra Joshi	Katherine Preston	Ian Redhead
Steven Hamburg	James Hileman, (FAA, DFO)	
Jay Dryer (Telcon)	Nancy Young (Telcon)	

#### **Other Attendees:**

Gregg Fleming, USDOT/Volpe	Joe Zelina, GE	Gloria Dunderman, FAA
Mohan Gupta, FAA	Sandy Lancaster, DFW	

#### **Telcon:**

Lourdes Maurice, FAA	Rhett Jefferies, FAA	Mike Gallivan, FAA
John Wiley, FAA	Cathy Bigelow, FAA	Patrick Moran, FAA
Beck Cointin, FAA	Ralph Iovinelli, FAA	Don Scata, FAA
Daniel Jacob, FAA		