

# SHINING A LIGHT

as of Feb 26th

ON EMERGING ENVIRONMENTAL POLICIES, PRACTICES AND MITIGATION IN THE ERA OF NEXTGEN  
The UC Davis Aviation Noise & Air Quality Symposium March 1~4 2015 Palm Springs Hilton

## SUNDAY, MARCH 1<sup>st</sup>

Concurrent Afternoon Tutorials - Plaza A-B & C-D

- 1-5 **Noise 101**  
**Steve Alverson**, Director, ESA Airports  
**Clint Morrow**, Senior Environmental Engineer, KB Environmental Services, Inc.
- 1-5 **Air Quality 101**  
**John Pehrson**, Associate and Principal Air Quality Engineer, CDM Smith  
**Mike Kenney**, Vice President, KB Environmental Services, Inc.

## MONDAY, MARCH 2<sup>nd</sup>

- 7:30-9 **Registration** - Horizon Lobby & Foyer  
**Continental Breakfast** - Sponsored by **Brüel & Kjær**
- 9 **Welcome & Introduction** - Horizon Ballroom  
**Donna Reid**, Symposium Organizer, UC Davis  
**Thomas Nolan**, Director, Palm Springs International Airport
- 9:15 **Keynote "NextGen: A Model of Stakeholder Engagement"**  
What is the NAC's consensus process to plan and execute NextGen initiatives, and how could this model apply to other efforts?  
**Bill Ayer**, Retired Chairman and CEO, Alaska Air Group / Past Chairman, NextGen Advisory Committee  
A veteran of more than three decades in aviation, Bill is the retired Chairman and CEO of Alaska Air Group, the parent company of Alaska Airlines and its sister carrier Horizon Air. He recently served as Chair of the NextGen Advisory Committee (NAC), a 28-member federal advisory body formed in 2010 to provide guidance on policy-level issues facing the aviation community in the implementation of NextGen. Bill also serves on the University of Washington Board of Regents, the University of Washington Foundation, and the Foster School of Business Advisory Board. He is Chairman of Puget Energy as well as the Board of Trustees at the Museum of Flight. Bill holds a BA in Economics from Stanford and an MBA from the University of Washington. He owns a Piper Malibu, and holds commercial and flight instructor pilot certificates with instrument and multi-engine ratings, with over 4,500 hours of flight time.
- 10 **Break with Exhibitors**
- 10:30am **SESSION 1 COMPENSATION for NOISE and EVALUATING IMPACTS**  
**Moderator: Donna Reid**, UC Davis  
Sound insulation of noise-impacted properties has been a traditional method for mitigating environmental impacts around civilian airports for decades. Financial compensation for lost or adversely impacted property values is making headway in Europe, while property tax appeals by citizens have been successful here in the U.S.. Some airports have begun to invest in their local communities, while others seek additional funding for more traditional mitigation methods.  
**Community Investment Programs**  
**Robyn McVicker**, Director of Marketing and Communications, Vancouver Airport Authority  
**Evaluating Community Impacts with a Focus on Children and the Nature of Risks**  
**Carl Cranor**, Distinguished Professor of Philosophy and Environmental Toxicology, UC Riverside  
TBA
- 12 **Networking Lunch** - Poolside **PRE-REGISTRATION REQUIRED**
- 1-2:30 **SESSION 2-A PREPARING AIRPORTS for NEXTGEN and PBN**  
**Moderator: Jason Schwartz**, Senior Noise Analyst, Port of Portland  
This session will address the roles of airlines, airports, and communities in maximizing the benefits of NextGen and minimizing environmental problems. The panel will incorporate guidance and recommended "best practices" developed by the RTCA NextGen Advisory Committee.

## **NextGen/PBN 101: What Airports Need to Know**

**Steve Fulton**, *Managing Director, Fulton Aviation*

## **The Airport Operator's Role in PBN Design and Implementation**

**James M. Crites**, *Executive VP Operations, DFW*

## **The Role of the Community in PBN**

**Emily Tranter**, *National Coordinator, N.O.I.S.E.*

## **FAA's Perspective on the Airport's Role in PBN**

**Donna Warren**, *Manager Environmental Policy Team, FAA Air Traffic*

1-2:30

### **SESSION 2-B - Palm Canyon A&B**

## **MEASURING AND ASSESSING AIR QUALITY AND HEALTH EFFECTS**

**Moderator: Mike Kenney**, *Vice President, KB Environmental Services Inc.*

This session presents the findings and implications of several new and significant studies which could be game-changers in how air quality is measured and managed around airports. A health effects study reported increased levels of lung disease in adults and children in communities near Boston Logan; a study near LAX reported that aircraft activity impacts air quality over a far larger area than previously assumed; several studies found elevated levels of lead at GA airports and communities are urging EPA to act; and recent work better characterizing aircraft emissions is presented.

### **Characterizing Aircraft Exhaust Emissions**

**Richard C. Miake-Lye**, *Director, Aero-Thermodynamics, Aerodyne Research, Inc.*

### **Lead in AvGas - Implications of Study Results**

**Jonathan Smith**, *Staff Attorney, Earthjustice*

### **Logan Airport Health Study**

**Alicia Fraser**, *Asst. Director, Environmental Epidemiology, Massachusetts Dept. of Public Health*

### **Emissions from LAX Airport Double Particle Number Concentrations Over More Than 20 Square Miles**

**Scott Fruin**, *Professor, USC School of Medicine*

2:30

**Break - Sponsored by Plane Noise**

2:45-4:15

### **SESSION 3 REAL-WORLD IMPLEMENTATION OF PBN**

**Moderator: Sandy Lancaster**, *Assistant Vice President Environmental Affairs, DFW*

Airports (IAH/DEN/DFW) and communities (College Park, GA/Minneapolis/Queens, NY) discuss their experiences with PBN implementation.

**Houston** **Colin Rice**, *Senior Airport Planner, Houston Airport (IAH)*

**Denver** **Mike McKee**, *Noise Abatement Manager Denver International Airport*

**Dallas** **James M. Crites**, *Executive VP Operations, Dallas/Fort Worth International Airport*

**Atlanta** **Ambrose Clay**, *Councilman, City of College Park, GA*

**Minneapolis** **Kevin Terrell**, *Co-Founder, MSP FairSkies Coalition*

**Steve Kittleson**, *MSP FairSkies Coalition*

**New York** **Janet McEaney**, *President, Queens Quiet Skies, NY*

4:15-5:15

### **SESSION 4A - Horizon Ballroom**

## **GENERAL AVIATION FORUM - BEST PRACTICES**

**Moderator: Bette Todd**, *Council, Greenwood Village and Centennial Airport Community Roundtable*

This session will address the most difficult challenges and lessons learned at GA Airports.

### **Community Advisory Groups" - The Airports Role in a Grassroots Environment**

**Hardy Bullock**, *Director of Aviation & Community Services Truckee-Tahoe Airport*

### **Voluntary Curfew at Witham Field**

**George M. Stokus**, *Airport Manager, Witham Field, Martin County, Florida*

### **Stakeholder Engagement and Airport Land-Use Planning**

**Kevin Bumen**, *Director of Airports, San Luis Obispo County*

**SESSION 4-B ANNOYANCE SURVEY BRIEFING** *Palm Canyon AB*

**Presenter:** **Rebecca Cointin**, *Manager, Noise Division, FAA Office of Environment and Energy*

The FAA is undertaking a nationwide "Neighborhood Environmental Survey" to update scientific evidence on the relationship between aircraft noise exposure and its effects on communities around airports. This data will support potential updates to or validation of the national aviation noise policy. Neighborhoods surrounding a representative 20 airports will be selected and surveyed while annoyance data will be linked to the noise exposure level for a particular address.

**6-8** **Networking Reception - Co-Sponsored by Casper and Vector Airport Systems**  
*Plaza Ballroom*

**TUESDAY, MARCH 3<sup>rd</sup>**

**7:30** **Continental Breakfast** Sponsored by **Exelis** - *Plaza Ballroom Foyer*

**8-10** **SESSION 5 TOOLS SHOWCASE & DEMO** - *Plaza ABCD & Tapestry*

Vendors showcase the latest tools and technologies to help your airport monitor and mitigate.

Participants: **Vector Airport Solutions** / **Brüel & Kjær** / **Casper** / **Exelis** / **Plane Noise**

**10** **Break with Exhibitors**

**10:30-12** **SESSION 6 CREATIVE SOLUTIONS TO DAMPEN GROUND NOISE**

**Moderator:** **Emily Tranter**, *National Coordinator, N.O.I.S.E.*

New and creative solutions are being employed at airports to both reduce noises impact and add an important resource to the surrounding community.

**Buitenschot Landscape Art Park, A Soundscape for Schiphol-Hoofddorp**

**Arno Eisses**, *Researcher, Environmental Noise, TNO Netherlands*

**SkyWall: A Noise Reduction Wall for Bromma Stockholm Airport**

**Albin Rousseau**, *Red Architectes, France*

**Noise Reduction Technology - Do Hushkits Work?**

**Bernie Weiss**, *Hubbard Aviation Technology, LLC*

**12** **Networking Lunch - Poolside** **PRE-REGISTRATION REQUIRED**

**1-2:30** **SESSION 7A A MODERATED DISCUSSION ON THE NAC CATEX2 RECOMMENDATION**

**Moderator:** **Steve Alverson**, *ESA Airports*

Section 213(c)(2) of the FAA Modernization and Reform Act of 2012 (dubbed "CatEx2") requires the FAA to designate NextGen PBN procedures as Categorical Exclusions under NEPA – meaning they have no potential for significant environmental impact – if they would result in measureable reduction in fuel, CO<sub>2</sub>, and noise "on a per flight basis." FAA said its preferred DNL noise metric aggregates noise and cannot measure reductions on a "per flight basis." The NextGen Advisory Committee (NAC), however, asserts that language in the conference report on the FAA Modernization Act refers to noise on an "average per flight basis," thus allowing use of the DNL-based Net Noise Reduction Method for determining compliance with CatEx2 the NAC developed. The FAA has asked the public to comment on the NAC's proposed compliance method and options to it the agency is considering.

**SPEAKERS:** **Nancy Young**, *Vice President of Environmental Affairs, Airlines for America*

**Ambrose Clay**, *College Park City Council, Atlanta*

**Scott Tatro**, *Airport Environmental Manager, LAX*

**Steven M. Taber**, *Attorney, Taber Law Group PC*

**Rebecca Cointin**, *Manager, Noise Division, FAA Office of Environment and Energy*

**1-2:30** **SESSION 7B - Palm Canyon A&B**

**AIR QUALITY MODELING, MITIGATION & GUIDANCE**

**Moderator:** **Donald Scata**, *Environmental Protection Specialist, FAA*

This session reviews the latest guidance on air quality policy and practice - from handling construction emissions, to mitigation and best practices, to e-taxi systems.

**Guidance from the New FAA AQ Handbook**

**Donald Scata**, *Environmental Protection Specialist, FAA*

## Emissions Reductions from E-Taxi Systems

Isaiah Cox, *WheelTug Plc.*

## ACRP Project 102 - Guidance on Construction Emissions

John Trendowski, *Principal Engineer, C&S Companies*

2:30 **Break**

## 3-5 **Session 8 NEPA and MODELING UPDATES**

### FAA Order 1050.1F Update / Desk Reference

Donald Scata, *Environmental Protection Specialist, FAA*

### AEDT 2b

Rebecca Cointin, *Manager, Noise Division, FAA Office of Environment and Energy*

### Guidance for Using AEDT 2b in NEPA Analyses

Donald Scata, *Environmental Protection Specialist, FAA*

## **WEDNESDAY - MARCH 4**

### **TOPICAL TRAINING MODULES**

7:30-8 **Continental Breakfast - Plaza Foyer**

8-11 **Noise 202 – Noise Office Best Practices - Palm Canyon A&B**

**Moderator: Christian Valdes, Project Manager, Landrum & Brown**

Airport leaders will provide an overview of 4 key functions performed by their noise programs, noting lessons learned and detailing the innovative solutions implemented, while addressing the needs of their various stakeholders. Participants will receive useful information from experts in airport noise management and take away insightful tools that may be applied in their own airport noise program or airport community group.

#### **Effective Community Engagement**

**Michael McClintock, OAK Noise Forum Facilitator**

#### **Industry Collaboration**

**Bert Ganoung, Aircraft Noise Abatement Manager, SFO**

#### **NextGen/PBN Implementation**

**Sandy Lancaster, Assistant Vice President Environmental Affairs, DFW**

#### **Leveraging Technology**

**Christian Valdes, Project Manager, Landrum & Brown**

8-9:30 **SUSTAINABILITY - Plaza Ballroom**

**Moderator: Monica Newhouse-Rodriguez, Managing Principal, Newhouse and Associates**

From solar and power generation management to renewables and the management of air quality reduction efforts - new approaches are being employed with success.

#### **Air Quality in Sustainability Plans**

**John Trendowski, Principal Engineer, C&S Companies**

#### **Solar Power Generation at IND - Sustainability + Revenue**

**Vincent Liu, Executive VP Strategy, Telamon Corporation**

#### **Airports and Renewable Energy**

**Eugene Reindel, VP and Manager, Aviation Environmental Services, HMMH**

9:30 **Break**

9:45-11 **CLIMATE CHANGE**

**Moderator: Phil Duffy, President and Executive Director, Woods Hole Research Center**

Severe weather events have taken their toll at airports. Many have created action plans to respond to these types of incidents as well as plan for possible broader impacts from climate change.

#### **The SFO Climate Action Plan**

**Houshang Esmaili, Sustainability Group, Government Affairs and Sustainability, SFO**

## **FAA Climate Adaptation Work: Superstorm Sandy Case Study**

**Donald Scata**, *Environmental Protection Specialist, FAA*

## **Sustainability Planning and Climate Impacts**

**Thomas Cuddy**, *Environmental Protection Specialist, FAA*

11-12:30

## **EMERGING TECHNOLOGIES FORUM**

**Moderator: Michon Powell**, *Environmental Policy, Airspace Regulations & ATC Procedures, FAA*

This session will provide briefings on potential environmental issues which may emerge from the integration of new aircraft into the NAS including Unmanned Aerial Vehicles (UAVs), Supersonic Aircraft, and space craft - as well as the potential positive impact of adopting new technologies to reduce environmental impacts from conventional aircraft including Biofuels (reduced soot emissions and contrail formation) and GLS procedures in the NAS (operational efficiency = fewer environmental impacts).

### **UAVs**

Unmanned aircraft systems today fly in the NAS under very controlled conditions and are not currently authorized in Class B airspace over major urban areas. What is coming down the road in this arena?

**Rebecca Cointin**, *Manager, Noise Division, FAA Office of Environment and Energy*

### **Progress in Supersonic Aircraft**

NASA and industry engineers believe research has progressed to the point where supersonic jets are within reach by overcoming the biggest hurdle to supersonic passenger travel - sonic boom. But other challenges remain. How soon can we expect to see supersonic aircraft operations?

**Robbie Cowart**, *Director, Supersonic Technology Development, Gulfstream Aerospace Corporation*

### **Cruise Emissions of Alternative Fuels**

In May, NASA and partners conducted a series of flight tests using alternative aircraft fuels. The project, Alternative Fuel Effects on Contrails and Cruise Emissions II (ACCESS II), tested traditional jet fuel and a 50-50 blend with extracts from camelina plant oil. Measurements showed soot levels were 40-60% percent lower from blended fuels. They also examined formation of contrails.

**Bruce Anderson**, *PI, ACCESS Program, NASA*

### **Environmental Benefits of a Global Navigation Satellite Landing System (GLS)**

The GLS system, which was introduced recently for commercial aviation in the NAS, has the potential to reduce noise impacts in the vicinity of airports and fuel use (emissions) while increasing airport capacity and reducing the cost of airport infrastructure. An innovative ecoDemonstrator Program shows the operational savings resulting from GLS procedures.

**David W. Forsyth**, *Lead Engineer, Airport Noise Engineering, Boeing Commercial Airplanes*