

Airports Going Green

Chicago Event Draws International Participation

By Lara Jackson

The fifth annual Airports Going Green conference was held November 4-7, 2012 at the River North Westin in Chicago. The conference is co-sponsored by the Chicago Department of Aviation (CDA) and the American Association of Airport Executives (AAAE). This year's conference covered such topics as the future of airport sustainability, green concessions, the link between green building

design and human health, a NetZero airport and connecting airports and communities. Airports Going Green had more of a global feel to it this year with panelists from Heathrow International Airport, Amsterdam-Schiphol International Airport and Greater Toronto Airports Authority. But, no matter what location attendees called home, they had one thing in common – to learn more about green aviation and to exchange ideas.



Mayor Rahm Emmanuel

Chicago's Mayor Rahm Emmanuel welcomed attendees and commented, "We have made investments throughout Chicago in energy efficiency, transportation and infrastructure. These investments create jobs and advance new industries.... Our collaboration with other national and international airports on sustain-

ability is an important part of our overall efforts to make Chicago the most environmentally responsible city in the country."

Green Efforts - Large and Small Airports



Rosemarie S. Andolino, CDA, Christa Fornarotto, FAA and James M. Crites, DFW Airport.

With the largest attendance this year of over 300 people, aviation and environmental experts from the United States and other countries shared their efforts and thoughts on airports' green efforts.

During his presentation, Nigel Milton, Director of Policy and Political Relations at Heathrow International Airport in London, United Kingdom, noted at Heathrow, which is the busiest international airport in the world, with over 65 million passengers passing through annually, "Our environmental footprint drives our sustainable energy. We need to enhance the airport's benefits and meet environmental limits at the same time."

Milton further explained that Heathrow's size and relatively close proximity to downtown London, about 15 miles, indicates that the airport's environmental footprint is much larger than other European airports, the biggest factor being noise pollution. According to Milton, Heathrow has been proactive in the reduction of its noise footprint.

Due to its commitment to reducing noise pollution Heathrow developed its strategic noise program which was patterned around the International Civil Aviation

Organization's Balanced Approach, which challenges attacks noise pollution in this order:

1. Quieter technology
2. Quieter procedures
3. Land-use and mitigation
4. Operating restrictions

Additionally, Heathrow has established Heathrow Airthought, which consists of a group of companies – from the construction companies that build Heathrow to the airlines that fly at the airport – committed to improving sustainability at the airport.

From the UK to Amsterdam, Marijin Ornstein, Manager of Security Policy at Amsterdam-Schiphol Airport; Amsterdam, The Netherlands, discussed the corporate responsibility regarding sustainability at Amsterdam-Schiphol.

“In order for the airport [Amsterdam-Schiphol] to remain Europe's preferred airport, it must take responsibility for:

- Environmentally-friendly aviation – reducing carbon dioxide emissions and generating renewable energy
- Commodity shortages – the conscious and sustainable use of all commodities and materials at Schiphol
- Sustainable employment – a condition and result of sound economic development of the Mainport
- Noise and Community – contribute to the Schiphol region creating an attractive place to live and work
- Accessibility and Air Quality – creating less and cleaner road traffic to and from the airport,” stated Ornstein.

Ornstein continued, stating that Amsterdam-Schiphol has implemented seven steps toward a more sustainable airport. Some of these steps include:

1. The implementation of a Better Place battery switch station at the airport – Better Place provides



Amy Malick, CDA, Ahmed Al Haddabi, Abu Dhabi and Rosemarie Andolino, CDA.

switchable electric car batteries and automated battery switch stations.

2. The use of electrical buses airside
3. Power Plane – instead of a traditional wind

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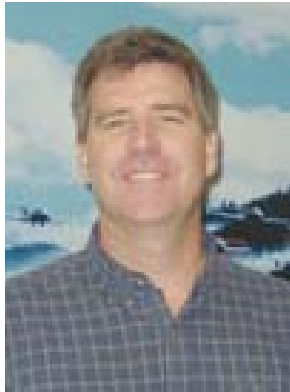
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turbine, the Power Plane, which is a small, lightweight glider tethered by cable to a reel, which drives a generator. According to the company, Ampyx Power, the plane generates the same amount of power as a medium-sized



Jim Elwood

turbine with fewer materials, less noise or local impact.

Jim Elwood, A.A.E., Director of Aspen/Pitkin County Airport, Aspen, CO, noted, “Many in the community see our tourism industry as a double-edged sword – it makes our community and economy function, but many don’t like the associated environmental and

other impacts of tourism.”

Aspen developed the “Fly Clean/Fly Green” Program in 2005, which assesses both noise and environmental factors and promotes compliance with noise abatement procedures.

According to Elwood, the airport has committed \$750,000 over the next few years toward sustainability efforts and has included sustainability into its 2012 Master Plan.

Lighting was a commonality discussed throughout the conference – the replacement of traditional lighting with the cost-saving and power-efficient LED lighting throughout the airport – from parking garages to flight illumination boards and other locations throughout the airport. Electronic vehicles, in the form of taxis, buses or staff vehicles are being used in many airports.

Many panelists sited communication as a key component to understanding the importance of sustainability. Various communication means were developed at the airports – from newsletters to sustainability teams. Also, many of the airports represented at the conference have established tight relationships with the neighboring community, which have included such efforts as setting clear

communication with the community and in the case of Amsterdam-Schipol, an annual “Neighbor Day” where nearby residents are invited to the airport for a day of education and fun.

Future Airport Sustainability

Representatives from the Federal Aviation Administration (FAA) discussed reauthorization and sustainability mandates at the conference. They noted that five out of the 10 Sustainable Master Plan Pilot Programs have been completed and that Lessons Learned will be posted on www.faa.gov soon. Also, 13 additional sustainability grants were issued after obtaining encouraging initial results from the pilot program.

Next year, the FAA will publish guidance for the FAA Reauthorization, Section 133: Recycling Plans for Airports. According to Patrick Magnotta, FAA, “Airports that have a master plan must complete a recycling plan.” This plan must address:

- Feasibility of solid water recycling
- Minimizing the generation of solid waste
- Operation and maintenance requirements
- Review of waste management contracts
- The potential for cost savings or the generation of airport revenue.

Biofuels is a crucial part of airport sustainability. According to Managing Director, Global Environmental Affairs, United Airlines’ Jimmy Samartzis, “Fuel is our single largest operating expense and accounts for most of our carbon footprint with more than four billion gallons used annually, accounting for 98 percent of our carbon footprint. A one dollar increase in crude oil costs us \$100 million.”

Samartzis explained that United has increased its fuel efficiency by 32 percent since 1994. Also, there are 270 aircraft on order, which will improve fuel efficiency by 20 percent. United is also committed to the commercialization and use of biofuel partnerships.

For biofuels to become a reality Samartzis pointed out the Midwest Aviation Sustainable Biofuels Initiative is focused on integrating across the value chain:

- Feedstock feasibility and availability
- Clean energy technology, maturity and growth
- Commercialization and business development
- Logistics and infrastructure
- Regional economic development and public policy

With the implementation of these values across the chain MASBI predicts the following outcomes:

1. Sustainable aviation fuel supply
2. Economic growth and tax revenue
3. Job creation
4. Climate change impact reduction

Unfortunately, there are several barriers facing bio-fuel fuel production including no established markets; unfamiliar industry norms and the management of risk, responsibility in handoffs.

Moving forward, Amy Francetic, Executive Director, Clean Energy Trust, notes that these biofuels will require supportive federal policy and funding and state economic initiatives. Francetic further explained the next steps for MASBI;

- Work with trade groups such as A4 to gather stakeholders for advocacy
- Establish regional partnerships between Midwest states, including airports
- Organize to compete for research and deployment funding
- Advocate for incentives at municipal, state and federal level

Even though many ideas and much technology has been implemented at airports nationally and globally, there is still much more that needs to be done in order to lower aviation's carbon footprint, but the gathering of experts at the Airports Going Green conference each year gets us one step closer to achieving that goal.



Rosemarie S. Andolino Commissioner, Chicago Department of Aviation



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