

AIR TAP Briefings

A publication of the Airport Technical Assistance Program of the Center for Transportation Studies at the University of Minnesota

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Special Fall Forum Issue: This issue of AirTAP *Briefings* features extended coverage of the 2011 AirTAP Fall Forum, held in October 2011. Look for information soon, including date and location, about the 2012 Fall Forum.

Fall forum focuses on securing future of airports

The 2011 Fall Forum, held October 6 and 7 in Breezy Point, Minnesota, drew 65 attendees from across the state to learn from each other and aviation experts in sessions centered around the theme of “Securing the Future of Your Airport.”

The forum kicked off with opening remarks by Jim Grothaus, AirTAP director; Shaun Germolus, airport manager for the Range Regional Airport and vice president of the Minnesota Council of

Airports; Christopher Roy, director of the Minnesota Department of Transportation (MnDOT) Office of Aeronautics; and Steve Obenauer, manager of the Federal Aviation Administration (FAA) Minneapolis Airports District Office. The forum was sponsored by Minnesota AirTAP (housed within the Center for Transportation Studies) and the MnDOT Office of Aeronautics, in cooperation with the FAA and the Minnesota Council of Airports.



Fall forum attendees gathered at the Breezy Point Conference Center.

Customer service tied to organization’s mission

Does customer service matter in aviation? And if it does, then how and why does it matter? Howard Hansen of Howard Hansen Consulting began the forum’s opening session by asking attendees to consider these questions as they discussed customer service. Hansen is also a member of the Detroit Lakes airport commission and a licensed pilot.



Howard Hansen

The issue of customer service is complex, Hansen said. Automation, security issues, tight budgets, and generational differences all influence customer service and how it’s defined today.

An airport manager in the audience asked how his airport could convey the value of good customer service and enforce best practices when working with staff outside of the airport’s control, such as Transportation and Security Administration employees, fixed-based operators, or the airlines, which he has heard complaints about. “You can’t force that,” Hansen said. “Leadership spends a lot of time focusing on things they can’t control: managing time and changing other people.”

“One of the things I rarely see in aviation is an airport with a mission statement,” he continued. Hansen advises organization leaders to “nail this down if they want to have an effect on the strategic components of their company that drive revenue and profitability.” Closely related to the mission statement is a shared values statement, which describes how the organization is going to behave. In addressing the question raised by the airport manager, Hansen said, “If your airport management is guided by a mission and values, at least you can go to the stakeholders that are creating problems...and say, ‘Just so you know, here’s

how we operate...here’s where we stand.’”

Another attendee, Rick Braunig of MnDOT’s Office of Aeronautics, offered the perspective of someone who travels to many of Minnesota’s small airports. He said he observes things at some airports that may make it difficult for businesses operating there to be effective, and thus to provide good customer service. For example, airports may not want to share profits from fueling operations with the FBO when customers pump their own fuel. “Times are tight. The tighter you press against those businesses operating on the airport...the harder it is for them to survive. And that attitude gets passed on to the customers.”

Many general aviation airports lack the resources to have staff on the field, but there are things they can do to make the airport more attractive, Braunig added. For example, someone should be out inspecting the airport every day, emptying garbage cans, making necessary repairs, and ensuring equipment is functioning properly.

“What we’re hearing,” Hansen said, “is something we’ve heard for years—that quality is in the details.”

It’s important to establish a way to regularly and intentionally gather feedback from airport users, Hansen said, whether through surveys or just talking with them. Another attendee suggested checking the website flightplan.com, where comments are posted from airport users. “[These sites] tend to attract people who love hyperbole, so you have to take it with a grain of salt,” Hansen said. “But if there’s something there that’s helpful, it might be worth hearing about... and at least talking with a couple of people to see if it’s actually true,” he said. “And if you’re using these [sites], be sure you’re responsive. That’s key.”

Airports own their wildlife issues

In another session, John Ostrom with the MAC’s MSP wildlife management team and Alan Schumacher with the U.S. Department of Agriculture’s Wildlife Services reminded attendees that the presence of wildlife at their airport is a safety hazard they are responsible for. “Just because you haven’t had a reported strike doesn’t mean you don’t have a problem,” Ostrom said. “You own the problem...you can’t just say [a wildlife strike] is an act of God.” And airports that receive federal funding must comply with FAA standards, which include conducting a wildlife assessment, he added.

“Wildlife control isn’t about just going out and buying a gun and shooting things,” Ostrom said. “A lot of airports do it this way, but you shouldn’t.” Airport managers need to know the rules, such as what permits are required for certain activities.

Schumacher said airport managers can either hire a professional to conduct wildlife control or do it themselves. If doing it themselves, the first step is to identify what species are on the airport. Second, managers should consider if the airport has any habitat issues—ponding areas or woody vegetation growing too close to surfaces, for example. Noncompatible land uses, such as agricultural operations near the airport, golf courses, and landfills, may also attract wildlife. The next step is to consider what can be done about it. And finally, ask yourself if you have, or could have, a problem, Schumacher said. Most airports will have a problem at some point, and fortunately, help is available. The MAC’s wildlife management team is one resource; others are the FAA and Airport Cooperative Research Program websites.

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Improving airport sustainability

In a session on sustainability for airports, architect Rich Lundeen and professional engineer Tim Wipperfurth of Mead & Hunt talked about several approaches airports can take to better understand and increase sustainability.



Blaine Peterson

Among the reasons to make operations more sustainable are to be good stewards of the environment, to create a better working environment in buildings, and, most important, to save money. “By saving energy, those are dollars in your pocket right away,” Lundeen said.

A first step, Lundeen and Wipperfurth said, is to start with the basics, which is improving the energy efficiency of existing buildings and equipment—for example, the quality of the window glass or the amount of insulation. And a building may not be operating how it was originally meant to perform if it’s been adjusted over the years; a building tune-up can put it back in alignment, Wipperfurth said.

The presenters recommended that airports perform a simple energy audit of their buildings to discover how energy is being consumed and find areas for improvement. Those results can be measured against information (available from the Department of Energy and state and local governments) on how similar buildings are performing.

In addition, airports can consider other simple improvements such as high-efficiency equipment.

Improvement measures with a simple payback period of less than five years include hot water heater replacement, lighting replacement, and variable frequency driver installation (which works like a dimmer switch).

Once basics are addressed, airports might consider incorporating renewable energies such as geothermal, solar hot water, and photovoltaics. “All of these have different paybacks,” Wipperfurth said. For example, solar hot water systems

offer “almost instantaneous savings”; other options will take longer to recoup an investment, but incentives may be available to help pay for them.

In addition to incorporating the ideas addressed, ongoing energy measurement is key, Lundeen added. “If you can’t measure it, you can’t manage it...It’s really about understanding what your use is, and taking that as a baseline of information to move forward,” he said.

Following Wipperfurth and Lundeen, Blaine Peterson with the Duluth Airport Authority shared ways Duluth International has made operations more sustainable. The airport implemented energy management solutions and an energy audit through Minnesota Power that resulted in \$19,000 worth of rebates over the past five years. “It was so easy it’s like free money,” Peterson said.

The airport began with simple fixes; one was re-lamping airport lights that needed to be on all the time, switching from 32 watts to 28. Lower wattage, he pointed out, doesn’t mean less light.

Another example was installing timers to turn off the bag belt system when it wasn’t in use. It had previously been running all the time, and in addition to using energy, it was wearing out belts prematurely. The change also qualified for an energy rebate, Peterson said, adding that reimbursements are available for many of these efforts.

In buildings, the airport installed photo eyes, occupancy sensors, and vending misers to power off vending machines when not in demand and turn off lights if a room is empty. And heating and cooling systems were programmed to adapt to occupancy.

Peterson said the airport also incorporated landscape management methods such as planting prairie grass to save labor, retain water, and help prevent runoff.

Service, safety, and sustainability influence airports’ future



Jeff Hamiel

Jeff Hamiel, executive director of the Metropolitan Airports Commission (MAC), returned to the forum again this year to discuss how service, safety, and sustainability play a role in securing the future of the MAC airports (consisting of Minneapolis-St. Paul International Airport and six reliever airports).

“If you run an airport of any size, your primary responsibility is providing high-quality customer service for people who rely on you for their services,” Hamiel began.

One of the MAC’s efforts to improve customer service was the formation of the Customer Service Action Council (CSAC), made up of representatives from the airlines, private aviators, Transportation and Security Administration, concessionaires, other tenants, the flying public, and communities. “The goal [for CSAC] is that when you come to the airport, someone is there to say, ‘How can I help you, what do you need, and can I get it for you?’” Communication—both to and for tenants and travelers—is critical for the process; tools include a website, interactive directories and information kiosks at the airport, and social media sites.

Results of a recent airport service quality survey of MAC’s CSAC program were highly positive, Hamiel noted. “So this does pay off, but it’s not the old airport managers’ concerns about replacing the pavement, building a gate, plowing a runway—it goes way beyond those baseline essentials,” he said.

Safety and security is also part of the MAC’s overall customer service enhancement, Hamiel said. The goal of its security and safety program is to keep the wrong people off the airport and prevent accidents and incursions in the system. The

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Changes coming to ‘through-the-fence’ agreements

Steve Obenauer, manager of the FAA’s Minneapolis Airports District Office, led a brief discussion on “residential through-the-fence” (RTTF) policy, which applies to all federally obligated airports. Obenauer noted that the FAA recently issued a new interim policy.

A residential through-the-fence operation is one that permits access to airport property by aircraft based on land adjacent to, but not on, airport property. It may be commercial, private, or residential, and an actual fence is not required, Obenauer explained. These are often private hangars built adjacent to, or as part of, a house, allowing aircraft owners immediate access to an airport.

Under existing federal law, there is no requirement for a public airport sponsor to

provide access to the airport from private property adjacent to the airport. But airports often choose to enter into RTTF agreements because they may provide another source of income for the airport, an aviation-friendly, supportive community, and additional security. However, Obenauer noted that RTTF operation agreements might introduce safety and liability risks by creating direct access to runways or taxiways, impede a sponsor’s ability to collect appropriate fees, or limit the airport’s ability to address future growth. And if one residential operation is allowed near the airport, it’s difficult to deny others in the future, he added.

In March 2011, the FAA issued an interim policy outlining the requirements that airport sponsors must follow if they want to continue RTTF agreements at federally

funded airports, Obenauer said. All airports with existing RTTF operations must certify their RTTF status, update their airport layout plans, and develop access and mitigation plans that ensure control of airport land and access, safety of airport operations, recovery of operational costs, protection of airspace, and compatible land use around the airport. In addition, the policy’s Amended Grant Assurance #5 prohibits new RTTF arrangements. The FAA will conduct another policy review in 2014.



Steven Obenauer

Speakers share ideas, resources for emergency planning

In this session, Todd Roth, airport manager of Alexandria Municipal Airport, shared his recent experience in preparing an airport emergency plan. Part 139 airports (those with commercial service) are required to have an airport emergency plan that meets specified FAA standards; although non-Part 139 airports are not, they are still encouraged to follow those standards when developing an emergency plan.

Roth said that the emergency planning for Alexandria's airport stemmed from an actual emergency situation, which was fortunately resolved safely. "We had the luxury of time to figure it out," he said. "But what if we had only 15 minutes? Could we have made it work?"

Roth wanted a documented plan that any staff member could use to handle an emergency—or at least properly manage it until others can get to the airport.

Roth was part of a team that developed an emergency plan for Alexandria, which coincided with the development of the *Emergency Guidebook for General Aviation Airports*, which will be published by AirTAP in April 2012. The experiences

and comments from Alexandria were used to revise and improve the guidebook, which covers the process and considerations for creating a plan and provides a template airports can adapt for their own use.

Roth covered some specifics about planning—for example, the importance of having the fire department visit the airport. "I think a lot of firemen just assume that all you have inside a hangar is an airplane ... It's good for them to get to know what's in your hangars so they can plan ahead." It is also helpful for the fire department to be familiar with all of the different access issues on an airport, especially which gates are available to them in case of emergency.

Following Roth, Rick Braunig of MnDOT added a few thoughts on emergency planning. He urged small airports to tap into the National Incident Management System (NIMS) program, which is currently active in counties. And airports must keep their emergency plan current, he said. "By the nature of it, it's going to sit on a shelf most of the time, but you have to bring it down a few times a year and review it, make sure phone numbers

are still current...maybe if you can do that tabletop review every few years, you have a better chance of being prepared," he said.

Finally, the guidebook's lead author, Shaun Germolus of the Range Regional Airport and AirportAdmin, offered a few comments. "Our intent was to really involve the community—show you how to do a plan together, then also a tabletop review and a live exercise review," he said.

Another point Germolus stressed was that in an emergency, the airport is not the emergency coordinator. "The airport is the airport emergency *plan* coordinator," he said. "You are in charge of the coordination and preparedness, but you may not be in charge of the emergency itself." That job, he continued, falls to the responding agency, such as law enforcement. "However, never give up control of your airport. You are in charge of your airport at all times. You are the best source to know ... access gates, water sources, cutoffs for utilities...those are things that your fire department and law enforcement agencies won't know."

MnDOT planning for aviation's future

Kathy Vesely, aviation planning director with the MnDOT Office of Aeronautics, talked about work under way for Minnesota's State Aviation System Plan (SASP). This 20-year plan helps inform decision-making processes that guide the development of Minnesota's system of airports. In addition, it's an integral part

of the Minnesota Statewide Transportation Policy Plan and is used by the FAA to help plan for the needs of the National Airspace System.

A new factor in this aviation planning is the need to incorporate it into MnDOT's Minnesota GO, a visioning process to better align the transportation system with

what Minnesotans expect for their quality of life, economy, and natural environment. That includes a 50-year vision for aviation in the state.

Among the guiding principles for Minnesota GO are leveraging public investments to achieve multiple purposes; ensuring accessibility; building to

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A wildlife hazard assessment is required for Part 139 airports. This assessment, conducted by trained professionals, provides an analysis of the events or circumstances that prompted the assessment; identifies the wildlife species observed and their numbers, locations, local movements, and daily and seasonal occurrences; identifies and locates features on and near the airport that attract wildlife; describes wildlife hazards to air carrier operations; and recommends actions for reducing identified wildlife hazards to air carrier operations. It typically takes 12 months to complete, and the cost could run from \$40,000 to \$200,000. Ostrom noted that airports should contact their FAA's airport district office about available Airport Improvement Program funding to help defray the cost.

The end result of an assessment is a wildlife hazard management plan. Although an airport may not need a formal plan, it still should document who is going to implement action, Ostrom said.

Habitat modification is the most effective

step, he said. "This gets you the most for your money. If you can change your environment so the animals don't come, you don't have to do any of the other steps," he

said. The second most important step is to make sure you have the permits needed to shoot birds or mammals, he said.

Although an assessment is expensive, other actions are not. "You can buy a launcher for 35 dollars and screamers for 50 cents each," Ostrom said, speaking about various pyrotechnics for hazing wildlife. "[But] if you're going to put these tools in people's hands, you need to give them training."

Documentation is another easy—and necessary—task. Airport staff should keep a daily log documenting wildlife sightings and actions taken. And any strikes should be reported to the FAA.

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Minnesota AirTAP will hold a day-long wildlife control workshop this spring. More details will be posted at www.airtap.umn.edu as they are available.



Jeff Mattson with the MAC's wildlife team helped Dorothy Schneider, Morris Municipal Airport, test pyrotechnics.

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MAC has improved its record for number of incursions through measures such as staff training; improved airfield lighting, painting, and signage; regular meetings with tenants and the FAA; and publication of safety brochures for transient pilots. For reliever airports, security basically consists of fencing, awareness, and surveillance, Hamiel said, so efforts to improve it include securing aircraft, reporting suspicious activity, enhancing fencing and gate access controls, and developing airport watch programs.

Airport sustainability, Hamiel said, means taking responsibility to save energy, cut costs, "and make things better for people in general." Over 10 years, the MAC has saved \$14.4 million in outright expense by taking actions to reduce the cost of utilities, such as recommissioning air handling systems, replacing all the ventilations systems, and replacing every light bulb in parking facilities with more energy-efficient lighting. In 2010, the MAC recycled 498 tons of cans, bottles, and paper; 182 tons of wood from pallets, 169 tons of baled cardboard, and 80 tons of food waste, among other items, resulting in a savings of \$86,000 in disposal costs.

Tour highlights pyrotechnics, lighting, and pavement

On Thursday afternoon of the fall forum, participants traveled to the Pine River Regional Airport for three tour activities.

Airport lighting and maintenance

Lou Dirks with Halibrute provided an overview of airport lighting maintenance and construction issues and demonstrated several types of airport lighting fixtures and bulbs. He urged participants to use a towel when working with quartz lamps to prevent them getting oil from their hands and fingers on the bulb, which could cause the bulb to explode.

Dirks also emphasized the importance of safety, recommending that airport staff turn off the power before doing any lighting maintenance and take the cutout switch with them when doing any maintenance on the field. The latter will prevent remote activation of the lights by landing pilots.

When using new contractors, make sure that electricians are familiar with airport lighting standards and procedures, Dirks said. Electricians who usually install residential electrical systems may not be aware of airport codes and requirements, especially for high-voltage runway lighting. Airport signing also uses a different voltage and needs to be installed by someone familiar with the lighting systems, he said.



Attendees examine light fixtures during the Pine River Regional Airport tour.

He also suggested that, before undertaking an airport lighting project, managers talk to John Schroeder from MnDOT's Office of Aeronautics for recommendations and processes to follow.

Several questions were raised about LED lighting. Dirks noted that an LED fixture costs about \$600 (versus \$80 for a standard one), and considering how easily they are damaged during plowing, the energy savings might not be worth the capital and maintenance investment.

Airfield pavement maintenance

Tom Wood from the MnDOT Office of Materials and Road Research gave an in-depth presentation on asphalt pavement maintenance and construction techniques, with specific information about asphalt crack sealants and seal coat treatments. He first described the process of asphalt

aging, which results from the oil in the asphalt mixture oxidizing from exposure to sun and wind. Because of this natural aging and drying-out process, Wood recommends an initial fog seal of CSS1H diluted asphalt emulsion immediately after paving. This costs about \$0.20 per square yard and is well worth the investment because it will extend the pavement life significantly, he said.

Wood also discussed the merits of jointing a new asphalt pavement, which controls block cracking that will naturally occur on asphalt. Even on a large pavement surface such as an apron, he recommended cutting joints immediately at 40-foot-block intervals. Cracks will reflect up through an asphalt overlay, and those cracks should be routed and sealed after they appear.

Wood also discussed the use of a mastic sealant, which has fine aggregate in it, as a patching material. The patching should be done in shallow lifts, then consolidated by rolling. Wood noted that several passes with a truck wheel is adequate to compact the mastic sealant.

Wildlife control

After the initial maintenance sessions were completed, John Ostrom, MAC Airfield Operations, provided a fun and educational opportunity for the Fall Forum participants. The MAC generously supported Ostrom bringing four staff members with him to help teach the entire group about wildlife control methods using hand-held launchers; the MAC also provided the shells and materials for all attendees to actually try them out.

Participants were allowed to try four types of launchers, each of which has a specific use in the field for hazing birds and wildlife. This hands-on session was an introduction to the more detailed workshop that was presented the next day by Ostrom and his staff (see related article, page 1).

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a maintainable scale; ensuring regional connections; integrating safety; and using partnerships.

Vesely reminded participants of their role in supporting long-range planning for aviation. "There's also a local share to all these project costs. So you need to work within your own community to support the airport. And talk to your local representa-

tives." Vesely said there are a lot of new legislators, and they may not know the value airports bring to a community. "They may not even know there's an airport in their own community. That really scares me," she said.

The team is planning for a March delivery of the SASP, Vesely said. Products will include a detailed system plan report with

capital improvement recommendations, a commercial air service report, and individual airport profiles, which the community can use when creating its own documents that include the airport.

More information is available online at www.dot.state.mn.us/aero and www.MinnesotaGO.org.

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