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VOL. 30, NO. 6

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Airport Business (USPS 001-614), (ISSN 1072-1797 print; ISSN 2150-4539 online) is published 8 times per year in Feb/Mar, April, May, Jun/Jul, Aug/Sep, October, November and Dec/Jan by SouthComm Business Media, LLC. Periodicals postage paid at Fort Atkinson, WI 53538 and additional mailing offices. POSTMASTER: Send address changes to *Airport Business*, PO Box 3257, Northbrook, IL 60065-3257. Canada Post PM40612608. Return undeliverable Canadian addresses to: *Airport Business*, PO Box 25542, London, ON N6C 6B2.

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INSIDETHEFENCE

Joe Petrie
Editor-in-Chief



Live and Learn

Hearing about the good and the bad is one thing, but living through it gains perspective.

One of the best things about working in journalism is getting to see things first hand.

I'm a firm believer in experiencing the news, not just reporting it, so when I needed to find travel arrangement to the AAAE Expo in Houston, I took the plunge into the ultra-low cost airlines pool by booking a flight on Spirit Airlines and opted to take it out of O'Hare during the worst of the TSA backups.

I'm still learning the industry, so I figured why not go through one of the world's busiest airports during a historic crush on the TSA while taking the airline with the lowest score on the American Customer Satisfaction Index (ACSI) that people either love or loath.

It was, well, interesting to say the least.

After arriving at O'Hare to greet a 2-plus hour security line in Terminal 3, I waded through the zigzagging line to get inside. I hustled to my gate and stood there for a few minutes before noticing it had been changed despite the flight information board not being updated.

Three sudden gate changes within 15 minutes later, I found myself at a Frontier gate waiting for a Spirit flight with no indication the plane was even supposed to load there. Some people were upset, some were concerned they'd

miss their flight and some of us were just along for the experience.

Sure it was a little nerve-wracking, but honestly, it was worth the experience.

While the TSA line was long, O'Hare offers Wi-Fi, so I was able to connect and zone out before it was my turn in the queue, so it didn't seem as long as it really took.

And trying to find the right gate was irksome, but it actually gave me a chance to befriend a few fellow passengers. And with an abundance of shops at O'Hare, it was easy to buy a soda before my trip.

And best of all, airfare was cheap. I was won over.

Most of us tend to stick to our favorite airlines, but if we want to build a better industry, you need to experience the rough patches first-hand to find the solutions.

When you live these experiences it shows you what improvements could be made to make a more pleasurable experience for passengers.

And it's more important than ever as more people take to the skies. People are demanding more service from airlines like Spirit, so the only way airports and airlines can make sure experiences improve is to live the challenges.



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Our increased collaboration with #airports and airlines is helping us foresee issues and challenges.



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Chicago Rockford International Airport will see the opening of a new MRO facility, which will change the business landscape of the entire region.

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► **The Pilot Shortage and Forward-Looking Solutions**

Not all pilots are created equally. Differing paths to pilot development lead to variances in pilot competence and capabilities. While flight time is an important indicator, it is not the sole factor in determining competence or readiness to fly passengers.

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MNAA Completes Geothermal Lake Project

The Metropolitan Nashville Airport Authority (MNAA) on May 17, ceremonially “turned the valve” on the largest geothermal lake plate cooling system in North America during a project completion ceremony.

MNAA switched to its new geothermal lake plate system in February and officially completed the transition and project in May.

Nashville International Airport (BNA) chilled water equipment’s energy consumption was 1.056 kilowatts annually on average before the project was done. From February – May 12, energy consumption was reduced to 0.525 kilowatts annually on average, which is a 50 percent reduction.

“This is a remarkable project for its scope, ingenuity and efficiency,” said Rob Wigington, president and CEO of MNAA. “The Airport Authority is committed to making sustainability an integral part of our business model. Not because sustainability is easy — rather, it is often a complex process — but because the benefits to our airports, the region and our environment are



overwhelmingly positive. This historic project will significantly reduce our electricity usage and potable water consumption, which will

result in substantial annual utility savings. This is the very essence of sustainability.”

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DTW Restaurants & Retail Recognized for Excellence

Detroit Metropolitan Airport’s (DTW) McNamara Terminal is winning honors for its retail and restaurant offerings.

The airport’s new P.F. Chang’s China Bistro, across from Gate A-36, was named Best New National Brand Concept, in the 2016 Excellence in Airport Concession awards presented by Airports Council International – North America (ACI-NA). P.F. Chang’s is operated by Hojeij Branded Foods & Joint Venture Partner, AP United LLC.

“Our new airport concessions are some of the best in the business,” said Airport Authority CEO Thomas Naughton. “Our mix of local, national and even international brands appeal to the broad spectrum of passengers we serve. We are honored by the awards, and are proud of the successful work by our team and partners that went into developing winning-concepts our travelers enjoy.”

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AIRMALL...

at Boston Logan International Airport opened the new Fuel America in Terminal E.

AIRPORTS COUNCIL INTERNATIONAL – NORTH AMERICA...

announced San Francisco International Airport and Winnipeg Richardson International Airport achieved Airport Carbon Accreditation.

BIRMINGHAM AIRPORT AUTHORITY (BAA)...

will install 27 electric charging stations to support ground-service equipment.

CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT...

served 3,131,765 passengers in February, a 2.5 percent rise from February 2015.

DEN Presents New Temporary Art Exhibit, 'Acúmulo'

Denver International Airport (DEN) opened the new temporary art exhibit, "Acúmulo," an installation that depicts a loosely interpreted microbiological habitat. Acúmulo is Portuguese for "growth by continued additions."

Artist Rosane Volchan O'Connor's biomorphic creation, a world of paramecium, spores and neurons, is composed of materials that include neon light, ceramic, wood, metal and found objects such as: luffa sponges from her hometown of Rio de Janeiro, Brazil; porcelain-dipped Spanish moss from her years in Houston; and industrial materials from Denver International Airport's recycling collection.

The exhibition, an experiential installation created specifically for the DEN Gallery, is on display now through the end of July on the west side of level 5 of the Jeppesen Terminal, near the north security screening area.

THE CHICAGO DEPARTMENT OF AVIATION (CDA)...

was recognized for safety by the Illinois Department of Transportation (IDOT) and for public service activities by the Association of Subcontractors & Affiliates of Chicago (ASAC).

DELTA AIR LINES...

expanded Delta Comfort+ fares to more markets.

DETROIT METROPOLITAN (DTW) AND WILLOW RUN (YIP) AIRPORTS...

named Brian Lassaline as its new director of public affairs.

FAITH GROUP LLC ...

moved its St. Louis office to a new location in Maplewood, Mo.

FIRST TRANSIT...

was awarded the American Airlines shuttle contract at Philadelphia International Airport.

HARTSFIELD-JACKSON ATLANTA INTERNATIONAL AIRPORT...

signed a Sister Airport agreement with Tel Aviv Ben-Gurion International Airport.

JETBLUE...

received its 12th consecutive J.D. Power Customer Satisfaction Honor.

JOHN F. KENNEDY INTERNATIONAL AIRPORT...

Terminal 4 opened the airport's first indoor, post-security pet relief area.



Flight Tracker

Alaska Airlines

- SAN — SMF added
- BUR — SJC added

Alliant Airlines

- BWI — AVL added
- BWI — TYS added
- BWI — LEX added
- BWI — TUL added
- CAK — SFB added

Frontier Airlines

- DTW — PHX added

JetBlue

- BNA — BOS added
- BNA — FLL added

Southwest Airlines

- BWI — SJC added

Sun Country

- DEN — MSP added

AVL Wins AAAE-SE Award

Asheville Regional Airport (AVL) received the "Commercial Airport Project of the Year" award for its construction of its Temporary Runway 17-35 and Taxiway B at the Annual Conference of the Southeast Chapter of the American Association of Airport Executives (AAAE-SE).

Titled "Project SOAR: Significant Opportunity for Aviation and the Region," the first two phases of the project were recognized at the AAAE-SE annual conference as the Project of the Year.

AVL was recognized for its reuse of coal combustion bi-product as fill for a portion of the temporary runway site preparation, as well as its creative plan to build a runway that will be used for two years while the longer, wider permanent runway is constructed.

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KANSAS CITY INTERNATIONAL AIRPORT...

reported 879,142 passengers in April, a 3 percent increase from April 2015.

KANSAS DEPT OF TRANSPORTATION...

awarded \$2.25 million to nine airports under the state's airport improvement program.

LATAM AIRLINES...

will bring the Olympic Flame to Brazil.

LISBON AIRPORT...

changes its name to Humberto Delgado Airport.

MCCARRAN INTERNATIONAL AIRPORT...

reopened Runway 7L/25R on April 22.

MINETA SAN JOSE INTERNATIONAL AIRPORT...

announced the Mobile Passport Control (MPC) app is available to eligible travelers.

MUNICH AIRPORT...

opened its first satellite terminal.

NASHVILLE INTERNATIONAL AIRPORT...

added Tennessee Brew Works, a popular Nashville-based brewery to its terminal.

ORLANDO INTERNATIONAL AIRPORT...

launched Fly MCO Radio 105.1 HD2

QUEENSTOWN AIRPORT...

installed or repositioned about 200 lights, including Precision Approach Path Indicator lights (PAPI)

lights, and touchdown approach, runway centre-line, runway edge and threshold lights.

RICKENBACKER INTERNATIONAL AIRPORT...

opened a new air traffic control tower.

SALT LAKE CITY INTERNATIONAL AIRPORT...

is planning to build a \$740 million concourse north of the existing terminal to accommodate forecasted growth in passenger traffic and to replace aging facilities.

SAN DIEGO INTERNATIONAL AIRPORT...

received the Institute for Sustainable Infrastructure's (ISI) Envision rating system's Platinum award for the Green Build landside project.

SAN FRANCISCO INTERNATIONAL AIRPORT...

awarded two contracts to SSP America.

SSP...

was awarded a contract to operate three food and beverage units and a substantial food court featuring a range of brands, in the International Departures Lounge at Abu Dhabi International Airport's Midfield Terminal Building.

TORONTO PEARSON INTERNATIONAL AIRPORT...

will open three new HMSHost restaurants in terminal 3.

Tucson Begins Building 'A Brighter TUS'

Construction for "A Brighter TUS" has officially commenced as Tucson Airport Authority President and CEO Bonnie Allin took a sledgehammer to one of the walls being torn down inside Tucson International Airport (TUS). The \$28.3 million dollar improvement project was approved by the TAA Board of Directors in April with a construction agreement enacted with Sundt Construction.

The groundbreaking event was attended by TAA, Sundt Construction and DWL Architects + Planners Inc. personnel as well as airport tenants and employees.



This 18-month project includes relocation and expanded capacity at the security screening check points, enhanced concession and revenue opportunities, the upgrade of critical building systems, and maximizing use of under-utilized space.

www.AviationPros.com/12217146



Hudson Group Launches Mobile Cart Concept at John Wayne Airport

Hudson News goes mobile...literally.

Traditionally Hudson Group stores are brick and mortar. But the travel retailer found that some customers weren't always able to get the merchandise they wanted and needed. This was because of several issues: there wasn't a physical store nearby their gate; peak store traffic offered the additional need for a larger presence; it is less convenient for disabled passengers and those supervising a child to visit the stores; travelers running late for their flight wouldn't prioritize shopping; and "gate-huggers"—inherently paranoid of missing their flight, getting lost, or held up in security — would go straight to their gate and camp out.

A mobile cart store concept solved those issues, allowing Hudson News to move their store from gate to gate at a moment's notice enhancing the customer service experience while boosting revenues. The idea is to proactively bring the product and store to the customer.

At roughly 3 feet by 5 ½ feet wide, the cart functions as a standalone store. It has its own POS system to track transactional data in real-time and houses essential items. A wireless device is attached to conduct credit card transactions. It has a mini-frig to keep drinks cold. It even has its own store number.

The cart consists of four travel retail categories: beverage, electronics, health/beauty,

HUDSON GROUP LAUNCHES PROPRIETARY PRODUCT CONCEPT

TARGET has Archer Farms. Whole Foods has the 365 brand. And now, Hudson has joined the ranks with its own line of proprietary (store brand) products for the airport retail industry.

Dubbed "The Traveler's Best"—a spin on the company's "The Traveler's Best Friend" slogan—the new Hudson branded concept includes 13 fresh food grab-and-go combinations sold in Hudson's open coolers.

Prepared fresh daily, they include such variety as Bistro Box, premium sliced Italian meats and cheeses with crackers and fruit; and The Rustic, a mix of white and mild cheddar cheeses along with grapes and crackers.

The packaging is designed so it matches the names. They are colorful and provide travel tips and playful messaging in handwritten-like fonts to align with the brand's personality such as, "Whenever possible never let your bestie travel hungry."

"People identify with brands and the packaging sought to further that emotional association with Hudson's owned brand and slogan," commented Steve Goulbourne, vice president creative director at Hudson Group.

James Healy, Hudson Group buyer for food and beverage, said with continued brand awareness and engagement, these proprietary brands will become, well, brands. Consumers traveling through Hudson stores will instantly recognize them and feel a con-

nection, he explained.

In crafting the concept, Hudson analyzed the latest trends to discover that millennial shoppers crave protein and healthy, grab-and-go snacks, explained Healy. It added open coolers to supply fresh food products; whereas, initially Hudson offered customers cold water and sodas in closed coolers.

Research was conducted on what combinations would be best. For instance, when Bistro Box was first created it included cheddar cheese with the pepperoni and crackers. While this combination was consistent with the competition, Hudson internal research found that an Italian pairing of provolone cheese paired better with the pepperoni. Grapes were thereafter included to add color, boost the health aspect and offer more of a complete snack.

It's said you eat with your eyes first, so presentation was very important. A lot of vendors just slice the cucumber leaving the peel. Hudson shaved parts of it off to offer a fresher look/feel.

There was also a focus on convenience. Rather than being bulky, the packaging was light but compact with product. Likewise,



subtle changes were taken into account such as the cheeses being sliced instead of cubed to make it easier to eat on a cracker.

The new line of products emphasizes the company's corporate social responsibility. All of the containers are bio-gradable. And a majority of the unsold, perishable products get donated to Harvest Program charity's local chapters on a daily basis in such major locations as Chicago, Seattle and Los Angeles airports.

Launched just this year, the numbers speak volumes. Sales have grown 40 percent year-to-date with 131 stores that carry them. The plan is to carry them in all locations within the next several years.

NON-AERONAUTICALREVENUE

and snacks and candy. For instance, customers can find toothbrush, toothpaste and mouthwash; pen and paper to take notes and fill out crossword puzzles; portable chargers and headphones, chips and a bottle water. It can hold up to 400 skewers of products.

The assortment changes to align with the changing customer. For instance, in the fall months it includes more chocolate because it's

more popular with adults; whereas, in the summer months there are more gummy candies to account for extra kids traveling with school closed.

While its addition has been smooth, starting out there was myriad concerns that needed to be addressed. Initially it was weight with the cart being too heavy to move swiftly. To remedy this, it became motorized with wheels propelled by a single sales associate — low overhead — with the ability to go four miles per hour. It is charged daily, but can last upwards of three days at full capacity.

"It is both seamless yet functional without causing any congestion," commented Mike Petersen, Hudson Group senior vice president of west coast operations.

There was also the issue of where to strategically place the cart and whether it would take away sales from the larger Hudson News store. It was critical to place the cart in a region with less of a store presence nearby. This is because impulse-driven customers who penetrate the stationary Hudson News store tend to spend more with greater product selection choices.

Another concern was whether it was best to launch additional kiosks in select locations instead. However, not every airport allows for this or has the space dedicated and kiosks don't offer the same kind of flexibility.

Indeed, the cart has the ability to serve multi-flights and



Image of mini frig with cold drinks from Hudson News mobile cart at John Wayne Airport. Hudson Group

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Image of Hudson News mobile cart at John Wayne Airport. Hudson Group

NON-AERONAUTICAL REVENUE



Image of POS system from Hudson News mobile cart at John Wayne Airport. Hudson Group

ad hoc gates that might arise from an emergency landing or traffic jam.

And the numbers speak for themselves. Sales volume on per square foot basis is very high, averaging between \$200 to \$1,000. Longer flights generate more revenue, as travelers need to stock up on more items.

"Products sell faster because we go straight to our target customer, filling their void, and offering them the best of the best," added Petersen.

Although the idea at John Wayne Airport came about from the airport's request, Hudson Group has experimented with the concept a few years back. Just after 9/11, when security was extra tight passengers were getting stuck in TSA lines. As a result, a pop-up mobile cart for several airports was launched. Over time, the lines subsided and the need lessened as a result.

And its rebirth in recent years and subsequent success has led to expansion with a duty free mobile cart in Seattle and Hudson News mobile cart in Burbank airport.

"It's one of a number of strategies and innovations used over the years to continuously evolve as the industry evolves and better live up to our goal to be 'The Traveler's Best Friend,'" noted Roger Fordyce, EVP and COO of Hudson Group operations.



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Digital Displays: Improve the Airport Experience and Impress Passengers

LED technology allows airports to transform the passenger experience while upgrading how information is getting to the public.

The spring 2016 air travel season is on track to be the busiest ever, with passenger volume exceeding 2015's peak by 3 percent. According to Airlines for America, 140 million passengers were expected to fly America's air-

lines during March and April. That equates to 2.3 million people each day traversing through the nation's airports – 2.3 million people who need to get to their gates, find the way to the restroom, grab a bite to eat, buy gifts and souvenirs for the family, and kill time between connections. And with airlines warning passengers to arrive at the airport at least two hours ahead of their flights, it's a truly captive audience.

The increase in passenger traffic combined with longer wait times is putting pressure on airports to up their passenger experience.

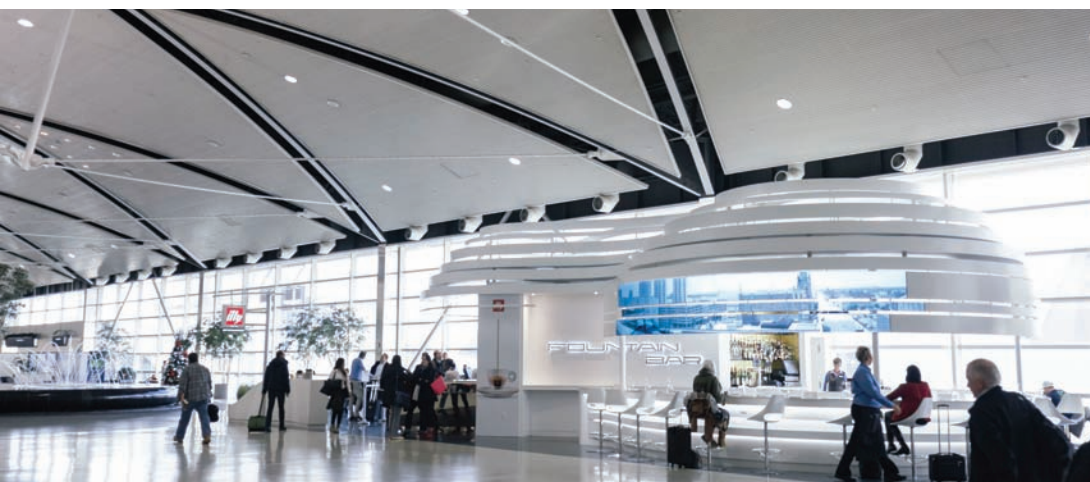
Airports are investing heavily in upgrading technology and experience, with a goal of trying to make average airline passengers feel like

they are sitting in their living rooms instead of an airport lobby.

Ten years ago, when a passenger walked into an airport, there would typically be a video wall made of 10 TVs. Airports have since migrated to LED displays, which are seamless and flash beautiful colors, but our collective brains are still adjusting to their vividness, so they don't have the same impact as they did when first introduced. They are starting to blend in with the rest of the scenery at airports and passengers just don't notice them as much anymore. Airports are now looking to LED display technology to make a statement, provide useful information and provide an additional stream of revenue in the form of advertising.

PROVIDING DYNAMIC WAYFINDING

Displays used for wayfinding in airports have been static, providing basic information like gate direction. These displays are very boring and to quote a past client, "make you feel like you are in an airport." But, LED displays for wayfinding can be so much more. They can be dynamic, alternating between wayfinding information and tailor-made content. Current digital display technology gives airports the ability in real-time to send out alerts, change flight and gate information, and offer passengers content designed to create a relaxing atmosphere. In airports in Japan, the use of digital displays for wayfinding is even more sophisticated. If an airplane from America lands in Japan, the digital display at the gate changes to English. If the plane is arriving from France, the language on the display changes to French – especially useful for non-English



When creating an airport experience for passengers, it's important they not feel like being in an airport. Photo by: NanoLumens

speaking cultures that typically don't see their native languages written on signage.

IN CASE OF EMERGENCY

LED technology makes the work lives of people who run airports easier and makes the airports themselves safer. Digital display technology has the capacity to change messaging quickly, amplifying an airport's ability to get important messages out to the flying public. LED technology minimizes the risk of making communications mistakes during a crisis. In a panic situation, it's very easy for messaging to become garbled when multiple people are involved in spreading the word, much like the children's game of telephone. If multiple security guards are given the responsibility of telling people what to do, it's likely that these multiple, changed versions of the message will be dispersed. With digital display technology, the same emergency messaging can be put on

every display in the airport with the touch of a few buttons – one consistent message delivered to every concourse and every gate.

ADDING MORE REVENUE THROUGH ADVERTISING

Because airports are investing more heavily in infrastructure to be competitive in offering a better level of passenger experience, they need to figure out ways to generate more revenue. Converting static displays to digital displays allows airports to utilize space to sell to eight different advertisers instead of one advertiser. Airports can multiply the amount of revenue per location. Most airports don't exist in a big enough market to sell to that many advertisers, so they can enlist the help of national players to sell out the space. The benefit of this type of arrangement for airports comes in the form of cost sharing. By bringing in partners, airports can share on the cost of the infrastructure.

DISPLAYS AS ATTRACTIONS

Airports are now looking to use LED display technology in a way that makes the displays themselves architectural features, so the display becomes an event. For example, the new display in Toronto's international airport is in the shape of a flower. Half of a flower petal has flight information on it; the other half has advertising. But the advertising becomes almost subliminal because the passengers are concentrating on the flight information.

Read More online at
www.AviationPros.com/12209919

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A New Reality for the Airline Business

Technology is the common thread today in optimizing passenger experiences for airports and airlines.

The message from Bob Montgomery — Southwest Airlines' vice president of airport affairs — in a keynote address at April's AirIT conference was clear: airports are not going to get between him and his customers.

Montgomery started at Southwest 39 years ago as a part-time worker.

"When I walked in the door at Southwest in late 1977, airlines and technology rarely collided in the same sentence. We were a low-cost airline," he said. "Just to give you a picture of what things were back then, if you were using a phone, it was about 20 times bigger than it is today and it was attached to the wall.

You couldn't leave a message because there weren't answering machines."

Southwest needed to build a reservation system, said Montgomery.

"We were cheap we didn't want to buy the huge computers that were required at the time, so we bought Bunker Ramo machine, a stock quotation machine that Wall Street was getting rid of," he said. "The screen was about

a third of the size of my iPhone, just a little bitty screen that had nothing but the flight number and a passenger's name."

The airline didn't have actual tickets; it had an NCR cash register that created a receipt, said Montgomery. "Instead of a boarding pass, the receipt would repeat the same information on the top and the bottom. And to give somebody a boarding pass we just tore their ticket and gave them the other half," he said.

"We have thousands of employees that are dedicated to nothing but technology solutions across our enterprise. We also have thousands of contractors who help us accomplish the technology agenda of Southwest Airlines," Montgomery said. "We have a technology annual spend that exceeds our aircraft purchases in our early years."

There is a new reality in the airline business these days, said Montgomery.

"There is almost nothing that we do that isn't touched by technology," he said.

Southwest is working on the replacement of its reservation system to Amadeus, said Montgomery. "We're already using the Amadeus product for our international routes. Replacing a reservation system is like this gordian knot of problems, because that system touches literally thousands of other systems that have to be overhauled and made consistent with the main product," he said. "I've been working on it for five years." The new Amadeus system will come fully online next year, he added.

"When technology is involved in every single thing that we do, literally everything, how do we prioritize? How do we impose spending discipline? How do we get good? What are we going to do before we move onto the next shiny object," Montgomery asked.

"Who's paying for all this stuff? Who is benefiting from it? What's the business case for implementing any technology solutions," asked Montgomery. "You're just like me. You're in love with technology for technology's sake. And you would start spending a lot of money trying to do it. So it's very pertinent to start asking these questions."

"There is almost nothing that we do that isn't touched by technology."

Airlines fly a million passengers a day and they are the real customer, said Montgomery. "And that customer belongs to me. He or she doesn't belong to the airport and they don't belong to IATA, ACI or A4A," he said. "Sometimes I might ask for some help in dealing with them on some particular issues. But make no mistake about it. The customer is mine."

At the end of the day if they don't have a pleasant experience, Southwest is the one that's responsible for answering those complaints, said Montgomery. "So if anyone thinks that they're going to get between me and my customers, like the say in Texas: it's like standing between a dog and a fire hydrant. It's just not a good place to be," he quipped. "So you know why am I making such a big deal out of



this? It is for one reason. If our task is to prioritize technology projects due limited funds in a limited time and inexhaustible needs, then we have to listen closely to the customer.

"And if it's my customer that we're listening to, you need to listen to me and appreciate my needs," said Montgomery. "But there's a lot of things that you all do in airports, in concessionaire or as consultants that we really don't want. For instance, we hate common use. We see absolutely no need for it and we're going to always fight against it."

Southwest has to do it in some limited cases, said Montgomery. "But we've got teams of people working on ways to figure out how not to do it, and pretty soon, they're going to figure that out. I do think that common use technologies has reached its peak," he stated.

Most people have absolutely no idea about how airports are actually financed, said Montgomery. "They think the cities pay for airports. Or they think the taxpayers pay for airports. And in either of those cases they would be wrong," he said. "I pay for airports. Airlines pay it. In the USA there are two primary rates and charges models at airports. One is called the residual model."

In that model, airports take all the costs, pile it up and take out all of the revenues that are generated by concessions, parking, advertising, cargo sales and that kind of stuff, said Montgomery. "And whatever's left, that's the bill I get," he said.

The second formula is called the compensatory model. "You take all of the cost and pile them all together, then divide it by the square footage. The airport pays common space out of the revenue they're getting and then they keep all the rest. A lot of airports say, 'Well, this is us sharing risk with the airlines,'" said Montgomery. "That's baloney. I haven't seen

an airport that has gone bankrupt with that risk. I'll take that model anytime if I get to be on the other side."

Right now, Southwest Airlines spend \$1.3 billion every year on rent, fees and charges, said Montgomery. "It's been growing for the last decade at a rate of 7 percent to 10 percent per year. It's the third-largest area of cost in my airline, right behind salaries and fuel."

Looking at airport construction, Southwest wants a lot of power, said Montgomery. "I want power for all the devices and gizmos and I want power that's available for all of my customers' gizmos in hold rooms. They want to charge things up," he said. "I like data routed through the airport with fiber where I can get hold of it easily. I also like free wireless. And I recognize that there is no such thing as free. But I like to have it without an extra charge for both myself, for new tools that we're rolling out for our internal staff and for our customers."

"I appreciate all that you do in our industry. And it is a crazy industry, because technology is in everything that we do. You're involved in everything that we're doing and we can't do without you," said Montgomery. "And I know that you're besieged by folks with new shiny objects. I can recall at least three calls a week for somebody with a new app that's going to do something that's going to revolutionize air transportation. None of them have lived up to that promise."

As companies set technology agendas, Montgomery had one request. "That you really look hard at who that customer is and what the hierarchy of customers is. Please take a long hard look at who's paying for this technology," he stated. "And prepare a plan that manages change and see that all the way through to completion."



**Uneasy Summer Ahead as
Airports, Airlines Wait for**

**TSA
SOLUTION**



O

n Mother's Day weekend, New York resident Jill Lauren was at Newark Liberty International Airport (EWR) with her husband on their way to Colorado, when she got a transparent look at the current status of the Transportation Security Administration (TSA).

Lauren said they were in the PreCheck line when they noticed the officer working the line looked "frazzled." When she was talking to him, Lauren said he told her that a bunch of other people had just quit.

"I just said to him 'I hope you don't quit,'" she said. "When I walked away I left with the thought that these are the people who have been tasked to protect us and to just see how transparent he was about the whole thing."

Lauren's experience is one of thousands being reported by travelers across the nation experiencing massive delays as a record crush of passengers descends on airports for the beginning of the summer travel season to meet security checkpoints which are not ready to meet the demand.

Kevin Burke, president and CEO of ACI-NA, said warning signs for an issue with wait times were already starting to show in spring. U.S. airports saw a "very challenging," spring break, proving to be a precursor to the glut of passengers hitting airports as summer began.

"Absolutely we saw this coming," he said during a May 23, press conference. "We had routinely warned Congress and TSA about the upcoming travel season."

Burke said ACI-NA is speaking with Congress about putting solutions in place by funding needed changes to TSA and facilities.

Airport security scrutiny hit a fever pitch as the summer travel season began in late May. Backups were reported across the nation and a viral video made by a passenger at Chicago Midway International Airport (MDW) showing a line stretching nearly endlessly created increased ire from the public.

Airports continue to be major hubs of economic activity, Burke said, and long wait times are hitting these sectors and impacting the bottom line of operations as a passenger

delayed in a security line is forced to rush to their gates and doesn't purchase food or other airport concessions.

"Often times it's the airports that get the blame," Burke said. "It's the TSA inspecting the bags, but people say 'I'll never get back to that airport because we spent three hours in line.'"

As the large hubs struggle with domestic security lines, it could mean a loss in revenues from foreign passengers as well.

According to a 2014 study by SITA, an extra 10 minutes spent in a security queue reduces a passenger's spending on retail by 30 percent on average.

"If you're a traveler and going through security takes an hour or hour and a half, your attitude and predisposition to spending money in the retail shops and concessions is completely different than if you grazed through security in 10 minutes," said John Grant, senior analyst with OAG Aviation. "When you put yourself under a time pressure it changes your mood."

AIRLINES STEP IN

Some airlines are addressing the issue by investing company money into additional security resources.

On May 18, American Airlines Chief Operating Officer Robert Isom issued a public statement saying the company is investing \$4 million to provide contract staff to its U.S. hubs and gateway airports. The staff relieves TSA officers from non-screening tasks in order for them to focus solely on security aspects.

American is also looking into ways to fund additional canine teams and is aggressively promoting PreCheck.

The airline declined further comment, saying the letter covered its views.

"We all agree that the TSA plays a vital role in protecting the traveling public and we're not

Airports across the nation see checkpoint lines increase and hit their bottom line while Congress works through a resolution to fix TSA.

By Joe Petrie

in favor of anything that jeopardizes that safety,” the letter states. “However, tens of thousands of customers have missed their flights and tens of thousands of checked bags have been delayed in TSA resolutions rooms due to low staffing. This is unacceptable to all of us, and the federal government can, and should, do better.”

By May 25, Delta Air Lines reported it was also investing \$5 million to help TSA agents at 32 airports across the U.S.

Christopher Bidwell, vice president, security ACI-NA, said the organization is working on a national level to address the issue and come up with a solution for the challenge.

“The transportation security officers do a great job,” he said. There are just not enough of them and that’s the bottom line.”

One of the biggest issues facing TSA is the shortfall of the PreCheck Program. While Burke said it’s one of the best concepts the agency has ever implemented, only 2.5 million have registered for the program, which is about 10 percent of what was expected by this time.

There are concepts being discussed to improve enrollment, such as having applicants go through the Post Office similar to obtaining a passport.

Burke said ACI-NA is working with TSA and Congress to make sure changes come

through for addressing the security issues, however, if there isn’t anything done fairly quickly, it’s a sign of a much greater problem.

“If we’re talking about this again next year, then there’s a complete failure in the system,” he said.

Airports are feeding record numbers of travelers to airlines, which are seeing record profit, Burke said, and with the economy doing fairly well, more people are traveling than they have in a long time.

“We don’t have enough officers to inspect these people,” he said. “You see PreCheck lanes being closed down and officers put on regular lines. When you spend \$85 for PreCheck line, you see why they get upset about it.”

TSA is ramping up efforts at larger airports as the summer season progresses. On June 1, Miami International Airport (MIA) announced TSA is providing resources to open the Concourse D Checkpoint 4 during peak travel times. The concourse services primarily American Airlines passengers, which hubs at the airport.

Grant said one of the symptomatic issues at hand is how carriers operate in the U.S. All of them want to fly at the same time of day. For example, he said there are 44 flights between South American countries and U.S. airports between 4 a.m. and 9 a.m. on a daily basis.

“The transportation security officers do a great job. There are just not enough of them and that’s the bottom line.”

Between 9 a.m. and 5 p.m., one flight — an Aerolineas Argentinas flight from Buenos Aires, Argentina, to John F. Kennedy International Airport (JFK) — flies into the U.S.

“If we’re going to alleviate this, we need to make better use of resources throughout the day, rather than at special times of the day,” he said.

SMALLER AIRPORTS COULD SEE BIGGER ROLE

While large hubs are seeing the brunt of the TSA strain, medium and small hub airports are avoiding many of the issues at the beginning of the summer travel season, but leaders are still being diligent.

Kevin Dillon, executive director of the Connecticut Airport Authority, said average security wait time at Bradley International Airport (BDL) are about 30 minutes at the



beginning of the summer travel season, but can spike up to 40-45 minutes during peak times.

He said the authority recognizes there are days when there will be too many sick calls from the TSA and times can bump up, but staff are working to keep wait times down for passengers, and open up additional security lines.

"One of the things we're doing to enhance wait times is we're working with the TSA to free up some of the positions where it isn't required to have a certified TSO," he said.

Dillon said the airport is also reaching out to the public to educate travelers and infrequent flyers to plan for trips. It's also promoting the PreCheck enrollment center, which he said has been very successful. Dillon said airports like Bradley promotes itself as an alternative to the large hubs in order to avoid

with the recent crash for EgyptAir and media reports of TSA agents missing 95 percent of contraband it wears on air travel.

"It's almost like we're grocery items being processed in the grocery store," she said. "I don't feel like we're any more significant than a grocery item. That's how it seems like the system works."

"It's harsh and that's how it feels."



Cincinnati/Northern Kentucky International Airport

implemented new technology in 2014 to monitor security queue times, which is still keeping lines in check by giving data to help TSA officers balance resources.

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the security crush, however, there is concerns about large hub backups hitting medium hub airports.

"The TSA is a national organization and if they don't keep up staffing at Bradley or they don't allocate overtime fairly amongst the entire system, yeah, we could be in the same situation as well," he said. "We hope we don't see that for places like Chicago or Boston or New York who have become oversubscribed that they start pulling agents from other operations to supplement and then we see it deteriorate at all airports."

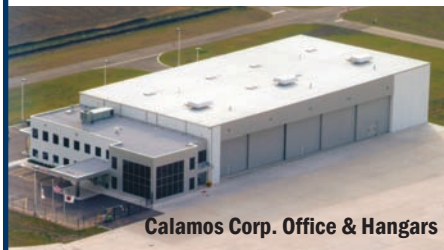
Grant said the long lines hitting TSA checkpoints are born out of the very strong demand by travelers as it is anything else, so there's a challenge in getting people to their destinations. Foreign travelers can instead look at flying into airports in Canada, then connecting to smaller U.S. airports in order to avoid the security issues.

"One of the great challenges as consumers is for the airlines to find the best possible connections to our destinations and that puts pressure on that connectivity and minimizing the connection time, so the airlines try and send more and more people through that funnel," he said. "It seems to me that it's inviting people to find alternative options in ways to travel to their destination."

Lauren said while she hasn't considered changing travel plans for smaller airports, security remains a big issue, but

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Overcome Complex Communications with Networked Crisis Communication

Emergency communications can be a difficult task to handle, but proper planning can build robust networks for safety.

Ensuring public safety on airport properties across the globe requires a complex coordination of emergency response services, advanced alerting systems and tightly integrated operations.

Airport leaders and emergency managers understand how difficult it is to communicate with the people and organizations you care about. Not only are millions of passengers transiting through terminals, but airports also host different organizations using multiple communication solutions. Combined with crews working in noisy environments where audible communication is a non-starter, managing a diverse set of people and organizations that range from commercial enterprises to federal authorities is an enormous challenge.

Communicating critical information during an emergency event as soon as possible is one of the most important capabilities necessary for effective emergency response and recovery. Airports are dependent on a wide range of organizations and agencies to assist them in times of crisis and disruption. These partnerships and networks rely heavily on the timely sharing of accurate information with each other, stakeholders, passengers and the general public.

As with the transitory system that aviation presents, airport leaders are always searching for ways to improve the coordination of emergency responses to better protect passengers, staff members, vendors at an airport, plus organizations and businesses in their nearby communities, including the public officials who will

judge an airport's emergency response leadership and efficacy.

Today, integrated safety and security solutions have grown from stand-alone, hard to manage physical systems to sophisticated communication networks that support an effective, real-time emergency response.

COMPLICATED NOTIFICATION SYSTEMS DELAY RESPONSE AND ADD COMPLEXITY

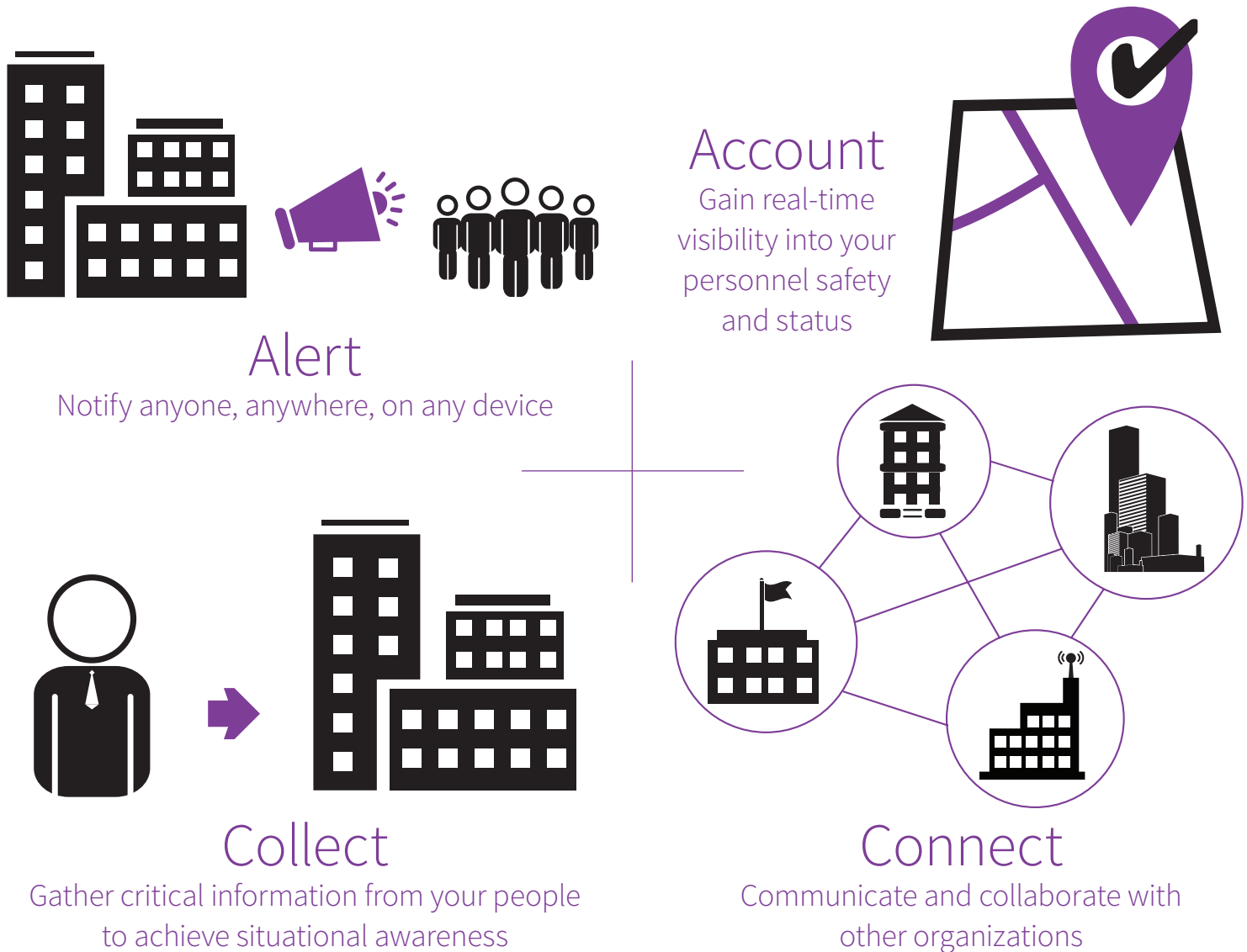
Many airports rely on aging technology and antiquated systems. Paging infrastructures are not integrated with other communication modes, including phones, public address (PA) systems and other alerting mechanisms. Each system is also managed separately in airports.

Travelers in noisy terminals and staff personnel working on the tarmac or baggage stations rely heavily on displays (i.e., FIDS and RIDS) to get necessary communication. Managers have to oversee the flow of information for all the separate communication components. It can be total chaos when the operations center sends out an alert to the entire facility.

Then comes the challenge of managing an accurate list of external contacts. Airports may use pagers and phones to send alerts, but distribution is difficult. Emergency managers must maintain a distribution list of airport employees and contacts at external organizations, including federal and regional first responders, airlines, ground service crews, retailers, fuel suppliers, cargo companies, general aviation services and other personnel who work in – but not for – the airport. Keeping the distribution list current is a huge ongoing burden that requires countless hours to manage and the results are never fully accurate. Additionally, when notifications are sent, there is no way to ensure that they are reaching the intended audience.

A BRIEF HISTORY OF EMERGENCY COMMUNICATION

The first technological attempts to notify people en masse were called Emergency Mass Notification Systems (EMNS). These basic systems utilized physical wire-based hardware,



such as telephones, fire annunciators, two-way radios, and PA systems, to alert response personnel in a command center. First responders relied on public safety communicators to sort out the various types of input and recommend appropriate action.

In 2005, the speed, ubiquity and robust nature of Internet Protocol (IP) networking enabled some of those uncoordinated systems to be connected to each other, and to laptop and desktop computers. Rather than having to listen to a cacophony of audio and visual signals during a crisis, operators could see alerts on a central screen with minimal distraction.

Moving to IP-based emergency communications allowed existing physical systems to be

integrated into a broader response infrastructure, without having to completely replace older legacy technology. These cost savings became critical, as airports sought new ways to upgrade safety, security and emergency response, while maximizing return on investment (ROI) and doing the best with limited financial resources as a result of 9/11 and the economic downturns.

Passengers and airline personnel depend on flight information display systems (FIDS) for departure and arrival times, gate assignments, baggage claim deliveries and other travel-related information. FIDS are supplemented by ramp information display systems (RIDS) that allow ground personnel and flight crews to dock aircraft at gates, move baggage and aircraft,

refuel planes, and provide on-ground maintenance and inspection.

In order to maximize efficiency and minimize aircraft turnaround times, the two systems in this example need to be connected to each other, along with the emergency response system, so that any threat to operations is communicated as accurately and quickly as possible. Ground personnel should be notified immediately if severe weather is in the area, or if they need to be aware of an inflight emergency on final approach. Inside the terminal, airline staff must be advised that ground crews may not be available until a situation has been resolved and that flight delays are imminent.

With the next step in the evolution of EMNS, innovative airports were able to move to a facility-wide, enterprise approach for governing emergency management. Increasing numbers of network-capable devices meant more data could be brought into the command center to provide improved situational awareness. Airport operations could be monitored from multiple remote locations and could connect large numbers of mobile personnel via smartphones or tablets.

Using alert templates, pre-defined response scenarios and employee profiles, airports could centrally manage mass notification and control “sub-systems,” which eliminated redundancies and errors in data management across the enterprise.

Future technology advances are now expanding communications beyond airport management to vendors, communities, and other entities directly affected by airport operations. These connections need to bridge a much wider range of communications technologies, while providing the real-time response and secured flow of information that up until now, had only been possible inside the physical and networked perimeter of the airport property.

INTEROPERABLE COMMUNICATION: NEXT FRONTIER OF CRISIS COMMUNICATION

Aging communications infrastructure, legacy technologies and incompatible systems are challenges for many airports. Additionally, a large number of these legacy systems are proprietary, with minimal levels of technological support threatened by attrition of employees and technology products experiencing end-of-life issues.

The difficulty lies in economically transitioning these stand-alone systems into a single unified experience, which allows operators to control all inputs and outputs, and extend rapid response capability beyond the airport property. History has shown that airport operators need to inform their tenants, surrounding infrastructure and even the broader community, to coordinate an effective response.

COMMUNICATION NEEDS TO EXTEND BEYOND FOUR WALLS

Most major airports with domestic and international traffic have to accommodate passenger,

freight and other ancillary operations that maintain these services. Beyond the airport itself, each airline, cargo company, maintenance business and vendor has its own organizational processes, procedures and cultures.

These challenges can be overwhelming. Each entity maintains a workforce of great diversity with regard to language, size, role, disability, security level and access level. The entire aviation system must be considered because it's an interconnected network where an individual airport does not operate in isolation.

Airport managers typically know how to handle internal communications within their physical grounds. True interoperability, however, has to include collaboration with a broader range of public and private stakeholders, including:

- Federal and state government authorities: Federal Aviation Administration (FAA), Transportation Security Administration (TSA), National Transportation Safety Board (NTSB), Federal Bureau of Investigations (FBI), Centers for Disease Control (CDC), Immigration and Customs Enforcement (ICE), and Customs and Border Protection (CBP)
- Public and private security and protective service organizations: Law enforcement, fire, paramedics and ambulances
- Airport and contract employees, including full- and part-time, on- and off-site: Retail vendors, supply chain providers, aerospace services companies, fueling and maintenance
- Geographic and functional neighbors: such as industrial, supply chain, hospitals, schools, hotels, rental car, air freight facilities and food vendors

It is difficult to coordinate the interactions of these entities on a daily basis. Emergency situations put these relationships under tremendous strain, precisely when seamless communications are most urgent. While some essential stakeholders may be part of the airport's communications infrastructure, most of the ecosystem remains outside these frameworks.

CONTACT LIST MANAGEMENT: EXCHANGING ONE PROBLEM FOR ANOTHER

Some airports and emergency management organizations tried to establish interoperability by including external emails and contact lists within their own distribution lists. While logical and laudable these efforts are actually

counterproductive in practice, for four reasons:

- Contact lists must be constantly updated to ensure that critical information is sent to the appropriate personnel.
- Email and other passive communications rely on someone to open and read the message. Critical information may not reach essential external personnel simply because that person is not online.
- List-based contact management is both time and resource-intensive. Staff must work diligently to confirm information about thousands – or tens of thousands – of individuals. A more intuitive, automated solution frees staff for higher priorities.
- Airports do not control the level of security and access to the external emails and external servers.

SOCIAL MEDIA IS NOT THE ANSWER FOR INTEROPERABILITY

Many emergency notification systems allow surrounding organizations and the general public to sign up for email alerts via social media without permission or vetting by the originating authority.

This open-access approach makes it difficult for safety and security personnel to isolate the communications they need from the inevitable noise that arises during an emergency. More significantly, these notification systems are not secured, which creates a major risk when proper control of information is critical.

The lack of a true, interoperable system means that subscription services via social media offer no practical interoperable value other than getting the word out. Social media produces unreliable information from unknown sources that cannot be relied upon to make informed decisions during an event.

CONTROL AND SECURITY ARE MANDATORY, NOT AN AFTERTHOUGHT

Control is another major concern of interoperability. Enterprise businesses expect their systems to grant them the ability to adjust roles and permissions across their organization to ensure individuals see only what they need to see, at the times they need to see it. These controls should also extend to customers, external partners, stakeholders and the general public as well.

Security, likewise, needs to be inherent to the system and is especially relevant for interoperability. By statute and as a business practice, personally identifiable information (PII), confidential operational information and other critical data need to be protected and stored in secure failover systems, especially when essential details must be revealed on a very short notice and pushed to specifically targeted populations.

USING NETWORKED CRISIS COMMUNICATION TO ADDRESS INTEROPERABILITY NEEDS

Internal alerts through multiple systems and devices are becoming more prevalent as many airports develop stronger communication programs to alert their employees. The ability to communicate with other organizations, however, is still a critical need, and must be achieved just as quickly to protect the airport ecosystem.

The first requirement is to develop the Airport Emergency Plan and protective measures that can either execute – or prevent – a mass, uncontrolled movement of travelers, or make shelter available to those who may be stranded due to the event at hand.

Next, a community approach would suggest a phased response that includes the organizations and people located closest to the incident, followed by a reinforced response with those farther away. Mutual aid relationships must be nurtured, practiced, and maintained at local and regional levels.

Typical interoperable communication scenarios encompass:

- Emergency events that require stakeholder notification (workforce, customers, and partners)
- Public alerting, 911 reverse dialing, and enhanced 911 (if available)
- Business operations notifications, such as workforce management roll call or mustering, callouts, severe weather, and important meeting reminders
- Context-based alerting triggered by a process or event, such as a flight delay, work availability options, or incoming injured patients
- Potential public alerting and emergency warnings of an impending emergency by local, regional, or national authorities

Two-way interactive alerting is an essential element to respond to an incident.

Targeted recipients who receive alerts can respond with their status. They can, in turn, equip their own decision-makers with the information necessary to protect people and facilities and then focus on arranging assistance for those impacted.

Airport operations need to reliably and rapidly send an alert that can reach all of its personnel across all personal and mass communication devices to ensure both visual and audio alerts are received within the ecosystem.

As the situation unfolds, airport responders need to notify on-site tenants, as well as the extended community and political authorities about the event and its level of emergency. A true state-of-the-art solution empowers each subscribing organization to create a unique, customized network of people and groups, so that the quality and fidelity of the information remains high and actionable as it is disseminated by member organizations, while maintaining their own operational protocols.

Finally, given that most commercial and certificated airports are owned or operated by local, state and national jurisdictions, emergency response requires expanding networks of shared information and intelligence to include federal, state and regional agencies.

Networked crisis communication should support collaboration among different functions, so responders can neutralize the event, while maintaining situational awareness among all responding entities. The system should also have a sophisticated reporting capability to capture all the system and personnel activities for post-event assessment and compliance requirements.

OUTCOME: SECURE, INTEROPERABLE AIRPORT CRISIS COMMUNICATION NETWORK

Airports are hubs for more than aircraft. They offer a centralized point of interaction for people, organizations, technology and communities. Airports are also an integral part of our national security. Given the unique position of an airport within its geographic and economic surroundings, it is critically important for these aviation facilities to deploy secure crisis communications systems that deliver essential information, situational awareness and real-time alerts and warnings during emergency situations.

Internal communications within airport perimeters have historically been systems of stand-alone modalities, using mobile fire and police radios, PA systems, fire annunciators and strobe lights, with little coordination among the individual elements. The growing need to deliver alerts and warnings to external organizations and governmental agencies has only served to highlight how existing communications at airports are ready for an upgrade.

Airport executives often regard EMNS as a commoditized service where inexperienced vendors compete on price, using limited feature sets that inadequately address the full range of airport requirements. However, networked crisis communication already delivers secure, cost-effective communications platforms that streamline internal communications, empower people and enable emergency communication and collaboration to an entire airport ecosystem.

Secure, scalable networked communication transcends devices, firewalls, radio frequencies, channels, jurisdictions and talk groups. As the ability to share important information about an incident is enhanced, people and organizations gain the knowledge and perspective needed to respond appropriately. Credibility is increased for airport operators and responding partners, demonstrating that they are capable of acting in a highly coordinated manner. Synchronization must take place across a broad geographical area – with the airport at the center.

Airport authorities need to protect passengers, employees, vendors and surrounding neighborhoods, as well as their reputations. A carefully researched investment in networked crisis communication is central to safety and security for each of these constituencies.



ABOUT THE AUTHOR

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Retired Assistant Fire Chief John Linstrom serves as business development manager at the AtHoc Division of BlackBerry, for Public Safety and Aviation. He has 30 years of experience in municipal, special district, state, military and federal government agencies as an emergency manager, fire chief and mass fatality team commander.



A Battle for Local Control in Mississippi's Capital

With changes in the way the aviation industry operates, the airport finds itself amid a drastic remodeling in leadership thanks to state legislation.

**JACKSON-MEDGAR
WILEY EVERS
INTERNATIONAL**

**AIRPORT
JACKSON, MISSISSIPPI**

Airports across the country have different ownership structures. Some, like Hartsfield-Jackson, are owned by the city, while others, like Rhode Island's T.F. Green Airport, are owned by the state. And still others, like Nashville International Airport, are owned by an airport authority.

It's always news when airport ownership changes happen, and the latest is what's happening at Mississippi's Jackson-Medgar Wiley Evers International Airport. In its current structure, the facility is overseen by the city's Jackson Municipal Airport Authority. But state Sen. Josh Harkins (R) felt the airport needed representation from the community that surrounds it.

Harkins introduced a bill that that would take away the city's control of the airport and put it in the hands of a new regional authority with representation from three surrounding counties. It would also change the airport's governing board from the current five representatives, named by the mayor, to nine members, with two seats reserved for city representatives. The bill was signed by Gov. Phil Bryant (R) on May 4.

In a statement, Dr. Rosie Pridgen, chair of the airport's board of commissioners, called Bryant's signing of the legislation regrettable.

"The Jackson Municipal Airport Authority Board of Commissioners will continue to challenge this hostile takeover of Jackson's airports," she said. "This legislation is not

business friendly, does not spur economic development and totally disregarded the exemplary management and progress of a fiscally sound enterprise. [The] board will continue to defend its airports."

This fight for control of an airport isn't unprecedented. In April 2002, the governor of Michigan signed legislation that moved control of Detroit Metro Airport from Wayne County, where the city is located, to the Wayne County Airport Authority. The airport is now overseen by an independent board appointed jointly by the governor, the county executive and the county commission.

In 2013, North Carolina's Republican general assembly passed a bill that would move control of Charlotte Douglas International Airport from the Democratically controlled city council to an 11-member commission. A legal battle ensued, with the city eventually



Sen. Josh Harkins

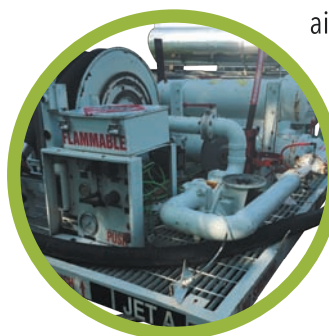


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winning an injunction to allow it to maintain control of the airport.

Dr. Stephen Van Beek is vice president at ICF International, where he consults on aviation and airport issues. He has also held executive positions at aviation consultancy LeighFisher Inc., the Eno Transportation Foundation, and Airports Council International-North America (ACI-NA).

"I've worked on changes with airport authorities. Sometimes they're controversial and sometimes they're not. What stands out with Jackson is there seems to have been no thorough analysis about the governance of the airport by an independent consultant," Van Beek said. "There should be someone who can look at the and pros and cons of the change."

Jackson airport had a tough break with Southwest Airlines leaving, said Van Beek. "But it was a direct result of the Wright Amendment being lifted at Dallas Love Field, which was out of the hands of [Jackson] airport. It was more of an industry trend," he explained. "The airport industry has been affected by trends including

the Wright Amendment, airline consolidation and changes in business models, which is not the airport's fault."

Carl Newman, the airport's CEO and Pridgen said they don't understand why Harkins introduced the bill. While enplanements are down after the withdrawal of Southwest Airlines in 2013, operations and financials are doing quite well, said Newman.

"After Southwest departed, we took actions to ensure the airport would retain its strong financial position. Since I've been onboard, our bonds are highly rated and our debt coverage ratio is strong, at 2.5 times our coverage need," he said. "Our annual revenue exceed expenses by \$4.2 million in 2015. And as of the first quarter of 2016, passenger numbers are going up."

Newman remembers exactly when he learned about Harkins's plan for the airport.

"It was on December 15, 2015, when the senator asked for a meeting," he recalled. "I had no idea what it was for. We met at 4:00 in the afternoon and that's when he told me about his plans.

"He said that he thought the airport was in a location where it needed to have more regional representation."

Jackson's board is all African-American, said Newman.

"He spoke in terms of doing this to generate more economic development in the region, including getting Southwest to return," he continued. "We were already working on that, but there's no indication that it will happen right now. Meanwhile, we continue to work on air service development issues, including bringing additional low-fare service to the region."

Rankin County sold the facility's land to the city of Jackson in the 1960s, so Pridgen wonders why they want to change the deal now.

"It doesn't make sense. Harkin has never been to a board meeting, nor has he offered any data to justify the deal," she said. "The airport has been very aggressive with its economic development efforts, and it's outlined in our strategic plan."

Had Harkins done research, he would see work was already being done, said Pridgen.





"All the things he outlined in his reasons for the takeover bill are already happening," she noted.

Under the legislation, the new regional airport authority would have nine members, with five being Jackson residents, including:

- The Adjutant General of the Mississippi National Guard, or his designee
- The executive director of the Mississippi Development Authority, or his designee
- A member appointed by Jackson's mayor
- A member appointed by the Jackson City Council
- One member each, appointed by the Madison and Rankin county Board of Supervisors
- Two members appointed by the governor
- One member appointed by the lieutenant governor.

"What this does is disenfranchise the city of Jackson," said Pridgen.

The bill was sent to the governor, who had until April 19 to sign it. If he didn't sign it within five days of receipt, it became law, effective July 1. But a provision states that the change could not be made until approved by the FAA.

This legislation is not necessarily unusual, Van Beek said.

"The city airport is now being seen as a regional asset, which means that not only do city residents claim it, so to neighboring jurisdictions," he said, citing Asheville, N.C., and Grand Rapids, Mich.

"In both cases, we analyzed the catchment area, looked at regional interests and found a way to best represent all of them on a new airport authority board," he said "That's usually the best practice in the industry. When this is done deliberative, you give a voice to everyone. But if you do legislation before doing a thorough analysis, it makes people wonder what the motivation is for the change."





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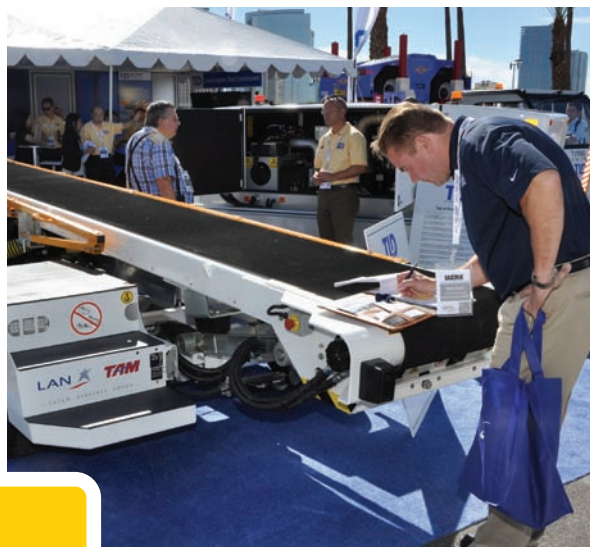
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History I've Seen

Recently a good businessman shocked me with a question. "Airports," he asked, "don't change much, do they?"

Of course airports change. Why do airports change? Let me count the ways. These are all changes I remember, so they start in the 1950s.

In the beginning, airliners were piston powered by huge, smoke-belching, noisy engines turning big propellers. They neither climbed nor cruised fast or high. Oh but they had lovely names like Convair, Martin, Douglas, Boeing, and Constellation. Trips were bumpy and airsick bags were oft utilized. The greatest of these aircraft was the Lockheed Constellation — fondly called the Connie. My father rode in one and came back to

announce, "Three hundred miles per hour and just as smooth as silk." I was awed.

Jet airliners came next and took over the airline industry in spite of the tragic crashes of the first jet airliner, the de Havilland Comet. Many people vowed that they would never fly in a jet — but they did. The smoothness, speed, and comfort convinced them.

One airline, Eastern, stuck with their piston-powered airliners. Eastern, led by World War I ace Capt. Eddie Rickenbacker, was the first American airline to operate profitably without guvment subsidies. Captain Eddie saw no reason to switch to more expensive jets, and he was dead wrong. He was pushed out of the company in 1959.

The jets, of course, led to many airport changes, including longer runways and larger terminals — as more passengers flew more places.

The hub and spoke system was started in 1955 by Delta in Atlanta. Decades later I wrote a poem dedicated to airline passengers in the Southeast. The beginning was, "Airlines will take you to thousands of places. They go everywhere and they cover all bases — but first, you must go to Atlanta." I won't bother to try to explain the hub and spoke system to airport managers. You know the pros and cons, and it does seem to be here to stay.

The Airline Deregulation Act of 1978 eliminated much of the guvment's regulation of the airline market place. Since then the airlines have flown more people more safely for less money and airlines have become the tool of the masses. Still, some people believe to this day that dereg was the source of all airline problems.

Air traffic controllers went on strike in 1981. Reagan fired the entire bunch. For awhile there, it was nip and tuck, but airlines and airports survived and thrived.

Up 'til now I haven't mentioned airport security. Anyone could go most anywhere at any airport, and we thought that would last forever. Problems — culminating with 9/11/01 — brought that to a screeching halt. We who watched this on TV will never forget it.

September 11 caused the biggest changes in airports in my lifetime. Airports became bewildering, confusing, and downright miserable in the aftermath. OTOH, thanks to people like you — airports did adapt and return to normal, but it was a new normal.

I think you've done a damned good job of handling the risk.



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Sound Decisions: The Delicate Science of Aircraft Noise Exposure Measurement

In the highly populated Denver metropolitan area, Centennial Airport applies IP-based capture and streaming technologies to minimize regional noise impact – to the benefit of community relations.

The Denver-Aurora-Lakewood Colorado metropolitan statistical area comprises 10 counties with a population exceeding 2.8 million. The population continues to be among the fastest growing nationwide; in 2014, the U.S. Census Bureau confirmed the region experienced the second largest population growth over the previous 12 months, reporting a 2.4 percent boost.

The continued population growth means that the two largest regional airports, Denver International Airport (DEN) and Centennial Airport (APA), are especially sensitive to how aircraft-related noise impacts neighbors. In addition to continuous expansion of existing residential areas, the consistent population growth drives construction of new neighborhoods.

The FAA provides flight data and other information to DEN and APA to help them understand how flight paths and aircraft contribute to regional noise impact. The FAA's goal, partially based on a 2013 noise reduction standard from the International Civil Aviation Organization's Committee on Aviation Environmental Protection, is to limit the number of residents exposed to Day Night Average Sound Levels, or DNLs. A 65 db level is widely considered the DNL threshold for

"significant noise," and is the level that airports aim not to exceed.

While the 2013 standard and similar initiatives have been instrumental in reducing noise through new aircraft technology development, fleet transitions and other programs, airports are still, for the most part, required to monitor noise and understand the impact on neighboring residential areas. Some have very stringent regulations and requirements to meet; others, like APA, simply monitor for scientific purposes and/or aim to reduce noise as a neighborly gesture.

However, management of noise monitoring systems and associated data collection has long been a tedious process. Integration and ongoing maintenance of remote noise monitoring terminals has long equated to substantial time and labor investments and delivering



Easily assembled, Centennial Airport's portable noise monitoring system can be on site and online, delivering data to the system within 30 minutes. Deborah Smith

noise information back to control centers has been tedious at best. However, migration to IP networks, audio streaming and managed services – or SaaS applications – have helped airports like APA discover new operational efficiencies and reduce costs.

EFFICIENT TECHNOLOGY

Denver International Airport, which declined to be interviewed for this story, is considered the fifth busiest airport in the United States, with claims of serving more than 53 million passengers annually. The airport works in accordance with the local Adams County government to minimize noise exceedances.

Across the city, Centennial Airport applies an aggressive noise monitoring operations, but for very different reasons.

"Centennial Airport has no scheduled airline traffic," said Deborah Grigsby Smith, public information officer for the airport. "We are general aviation only."

However, that doesn't mean APA lacks activity. With more than 300,000 operations annually, APA ranks among the busiest general aviation business airports in the United States. It is also an important revenue source for the local economy, generating approximately \$1.4 billion in economic impact, each year.

APA is not subject to airport traffic limitations since it is located outside of the city of Denver, and is not party to any specific governmental agreements to minimize noise. However, the Arapahoe County Public Airport Authority, which owns and operates APA, has

proactively completed the "Centennial Airport Part 150 Noise Compatibility Program," based on a voluntary FAA program recommending guidelines for airport noise compatibility planning.

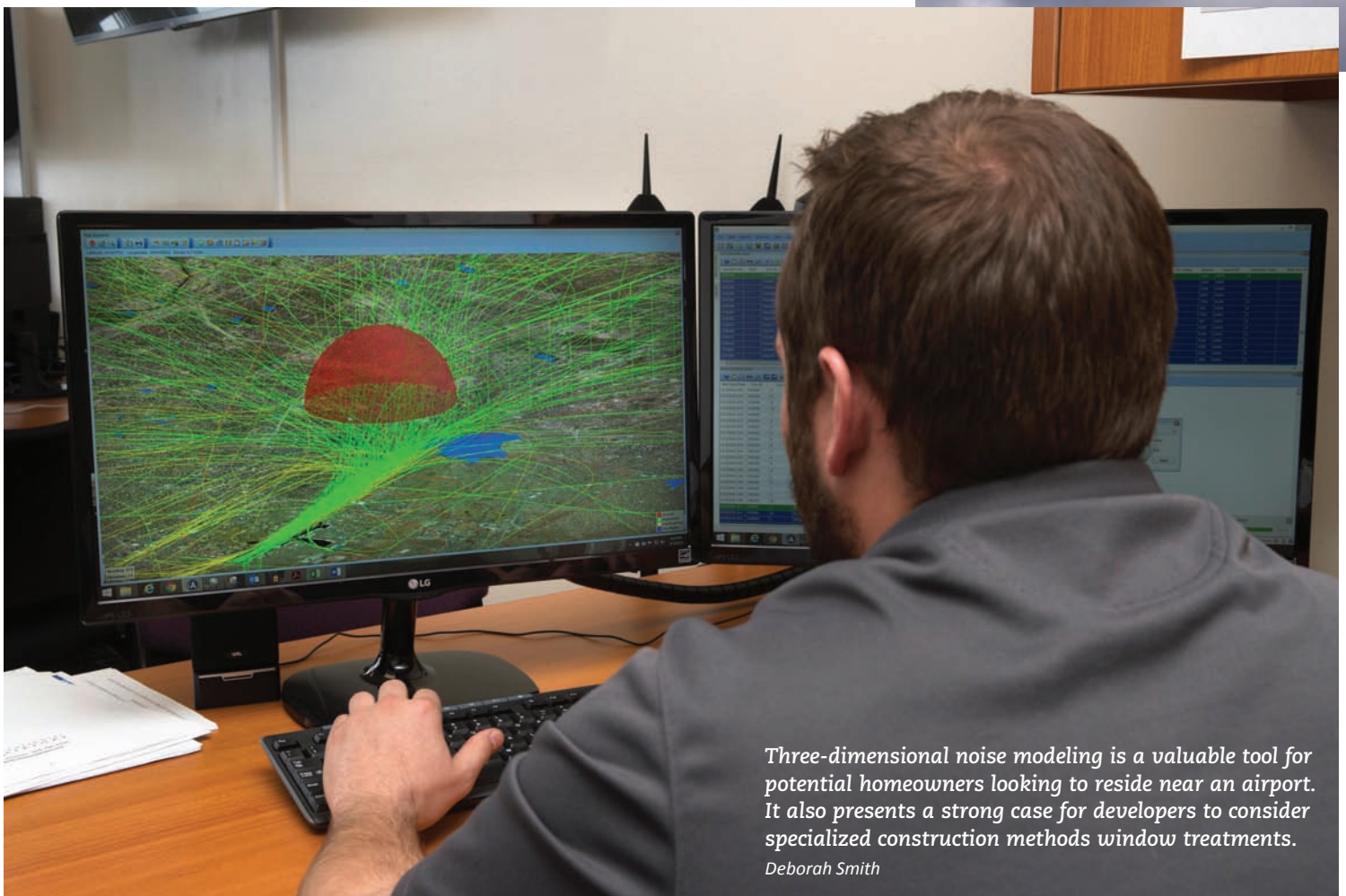
APA is in the process of updating its Noise Exposure Map, which provides a current baseline, as well as a five-year forecast, of aircraft noise exposure levels based on existing and future traffic, respectively. To support these efforts, the APA noise monitoring team relies on a Bruel & Kjaer Noise Monitoring Terminals (NMTs) with integrated Barix Audio over IP devices for streaming.

"We have 12 permanent sites, half of which are solar-powered and two of which are located on airport grounds," says Aaron Repp, noise and environmental specialist, Centennial Airport. "Between the 12 airport monitors, we have a capture rate of about 93 percent. Those monitors are placed in noise sensitive areas



Approximately half of Centennial Airport's permanent noise monitors are solar-powered, requiring minimal maintenance and contributing to the airport's sustainability efforts.

Deborah Smith



Three-dimensional noise modeling is a valuable tool for potential homeowners looking to reside near an airport. It also presents a strong case for developers to consider specialized construction methods window treatments.

Deborah Smith

NOISEMITIGATION



Portable noise monitoring systems, like this one used by Centennial Airport staff members Mike Fronapfel, left, and Aaron, right, help apply hard data to noise events to more accurately identify trends and anomalies.

Deborah Smith

throughout the community and on the approach and departing paths of the aircraft. We additionally have two portable monitors that we move between residences, construction sites and other sensitive areas to give current and future homeowners a better grasp of flight activity and related noise.”

The flexibility of the portable units has proven valuable for studying residential complaints. Repp points to one example where a resident was logging about 1,000 noise complaints per month.

“We put a monitor there for just over a week, and it really captured proof of what was happening at the residence,” he said. “We didn’t find a very high noise exposure level for that general area, but it allowed us to verify, with hard data, what was happening and compare the community noise versus aircraft noise. In that location, the community noise was, in fact,

much higher than the aircraft DNL average.”

APA applies the DNL threshold of 65 db to its noise monitoring efforts and uses that figure within a formula to measure noise exposure averages over a one-year period.

“It’s what we, in aviation, call a logarithmic average,” says Michael Fronapfel, director of planning and development, Centennial Airport. “The noise is averaged throughout the day, and from 10 p.m. to 7 a.m., an additional 10 db is added to every noise measurement. This is because the ambient noise is usually lower at night, which makes the perceived aircraft noise much higher. That is the only federal guideline we have under the control and jurisdiction of the FAA.”

Following a study that recommended APA purchase a noise monitoring system – and a federal grant to support that purchase – APA began evaluating systems on the market. Fronapfel notes that there was only one other system in the running that is also considered very reputable, but the Bruel & Kjaer

offered a bit more at the time of the purchase, including a subscription-based SaaS option that outsourced hosting and maintenance.

APA’s system came with integrated Barix devices to stream audio to APA’s control center, which eliminated more of the heavy lifting upfront. Supplied through U.S. distributor and IP audio streaming specialist LineQ, the Barix devices can provide live audio streams, though APA rarely monitors those. Instead, they rely on Barix’s ability to encode and deliver streams, which are recorded and later reviewed on a case by case basis.

“For our purposes, we don’t need live streaming to verify noise exposure at the site,” Fronapfel said. “Instead, the live audio is captured from the NMT microphone, and the Barix Instreamer streams that audio to a server that records the event. Our system

already differentiates whether an exceedance was caused by an aircraft or community event – usually based on the length of the event, since community disturbances are typically longer-lasting. However, the recordings are useful to pull up either if additional confirmation is needed, or if there is an unusually loud aircraft disturbance we want to study, such as a military flight.”

APA’s use of noise monitoring technology proves how useful and important such initiatives can be for community relations. Before installing the system, the APA team would typically call DEN for assistance in looking up flight paths and correlating noise complaints with aircraft. Now, it can respond quickly to complaints and proactively assist the community.

For example, Repp is tasked with providing noise data and referrals to developers, as well as localized information for potential homebuyers looking to reside near the airport and surrounding areas. The system allows him to speak specifically to the site, using hard data to provide insight on flight routes and expected noise exposure; and to provide recommendations or opposition to a project based on whether it’s zoned for commercial, industrial or residential use.

“Recently we were contacted by someone interested in buying a home near the airport, and I was able to build an imaginary cylinder, a half-mile wide by 5,000 feet tall, over the identified property, using the track filter,” says Repp. “I was able to count how many noise events happened within this cylinder. Additionally, we can trend that data and show increases or decreases over the past couple of years, speak pretty accurately to potential developers and buyers.”

Fronapfel concurs.

“When we talk to planning commissions and city councils, we can support our case with hard facts and numbers based on the Bruel & Kjaer and Barix technology, whereas before they had to just take our word for it,” he says. “We can now very effectively strike the balance between the needs of APA and the noise exposure we have on residents and commercial entities. This technology has been very important to our relationship with the community.”



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Best Practices in FBO Management: MARKETING

With a generational shift underway, how should you be marketing your FBO?

As an industry, Fixed Base Operations are in a state of transition on many levels. The past 10 years have seen the highest level of mergers and acquisitions activity than in any time in history. In the most literal sense, the command-response of “You have the controls- I have the controls” means an entire generation is departing the pattern for retirement, while another is checking in on frequency.

Baby boomers are leaving in droves and Generation Xers are finding themselves in charge of vast aviation empires, with no Pilot’s Operating Handbook. Adding to this complexity is that the marketing tool of social media, once novel, is now ubiquitous, while the once ubiquitous print media trade publication has become novel. A generation who once differentiated their businesses with a compelling narrative is at odds with a demographic sired to soundbites.

And yet, these two disparate methods of storytelling are both highly relevant to crafting an FBO’s unique narrative in this transitory phase in the industry. How then should an FBO address the business imperative of effective marketing? One part of that answer, is through a mixed media approach to its advertising: Print, online and social media campaigns.

While the budgetary percentages assigned

to each of the three mediums can vary, representation in all three must still be considered by an FBO. Like land-based phones or wristwatches, print media may seem superfluous in a modern approach to marketing. Yet, as alluded to previously, a great many customers of FBOs- the pilots and passengers alike- are themselves still strongly engrained to print.

Despite reports to the contrary, rare is the 20-something hipster with an iPhone as umbilical, stepping off the back of a business jet these days. There remain elder statesman- and stateswomen- of industry in the back of the jet, who yes, still rely on print. Likewise, pilots who are either the decision-maker or decision-influencer as to which FBO to use, still read print too. FBOs who incorporate a portion of print into their marketing campaigns should look for publications that also offer an online presence and an annual FBO rating system, ranking, or



reader survey of some type. Magazines such as *Airport Business* offer a best and brightest opportunity in their annual “Top 40 under 40,” permitting FBOs an opportunity to feature superstar employees.

Various publications also offer annual FBO rating systems granting FBOs a chance for bragging rights and market differentiation opportunities, which can then be leveraged in the other two marketing media, online and social media.

A wise FBO should undertake a multi-faceted marketing approach and should also consider community involvement, media relations, participation in tradeshow and industry events, customer visits, aviation scholarships and other giving mechanisms...

Though an oversimplification, the core role of any marketing campaign can be summed up in two disciplines: brand awareness or call-to-action. Because no one clips coupons for cheap jet fuel out of industry trade publications, print is today primarily a brand-awareness play for an FBO as opposed to call-to-action. Online marketing however, offers an FBO both possibilities.

Interestingly, a lesson from the earliest days of print actually applies to online advertising-keeping vital and relevant information "above the fold." With regard to online marketing, "above the fold" refers to placing prioritized content at the top of a web page preventing visitors from having to scroll down.

In an effort to solicit an interaction from a user, ad content can be a call-to-action banner that routes the user to a desired location. For FBOs, flight planning websites are ideal for combining brand awareness with call-to-action ads because they offer a unique capability along with the potential to complement the flight planning process with an FBO's advertisement.

For instance, if a user is planning a flight and an FBO advertisement directly correlates to their intended route or destination, they are more inclined to engage with the ad and click through. Regardless of the "to click or not to click" decision of the user, however, the impression of the advertisement alone will still impart brand awareness of that FBO to the user.

These days, social media is often heralded as the reigning online method of marketing, but this proclamation is myopic and relative only to the subject being advertised. Simply put, while

a "Like" on Facebook may influence a potential customer of 7-11 to buy a Slurpee, a "Like" of an FBO's most recent post probably doesn't translate to a G650 operator taxiing over and buying a few thousand gallons. A Slurpee is a consumable item that millions of consumers can afford, while there's still fewer than 200 G650s in the world.

For an FBO then, social media is largely a tool to promote brand awareness. It is highly questionable as to whether or not it affects customer decision-making in the FBO industry. To be sure, if utilized wisely, social media campaigns can cultivate positive brand awareness. Discretion however should be exercised with its use. An FBO should be careful to use social media platforms with the same quality of professionalism demonstrated in their other marketing or advertising capacities.

While social media can offer fun advertising alternatives, the injection of humor into a social media campaign must be done in a delicate fashion, attracting user attention while also responsibly curating the image of the brand. Though it would seem the ultimate recipe for a social media post going viral includes a cat video, it probably isn't appropriate for an FBO unless perhaps the business is named for the flamboyant air racer Roscoe Turner, who famously flew with "Gilmore," his trusty lion cub at his side.

During this transitional phase in the industry, an FBO must still capitalize on the possibilities offered by print, online and social media, as all serve as viable advertising platforms. Yet, just as those three platforms work better in conjunction rather than alone, they must also be supplemented via other marketing methods.

Marketing in its most complete sense, must extend well beyond advertising and into other branches of effective brand awareness and ambassadorship. A wise FBO should undertake a multi-faceted marketing approach and should also consider community involvement, media relations, participa-

tion in tradeshow and industry events, customer visits, aviation scholarships and other giving mechanisms, and much, much more than can be illuminated within the confines of a few pages. Like a well-oiled machine, the various components of an FBO's marketing plan must work in harmony to achieve its goals. The creation of engaging content that is consistent to the brand's identity, yet calibrated to rapidly shifting customer demographics, is the first step.

ABOUT THE AUTHOR

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A Five Year Approach To Airport Parking

Creating a proactive approach to parking assets can improve one of your biggest non-aeronautical revenue resources.

For most airports, parking is one of their most valuable assets. In addition to being an important source of revenue, airport parking facilities are also essential to the airport's smooth operation because travelers count on being able to quickly find a parking space near their terminal so they can get to their flights. By providing efficient, user-friendly parking, airports can help assure a smooth transition for travelers from their vehicles to their planes.

The importance of parking as a source of revenue can't be overstated. In fact, it is generally the largest source of non-airline income for U.S. airports. Parking revenue is so crucial to the ongoing financial well-being of airports that many rely on it to pay for the lion's share of enhancements and upgrades to services and equipment not associated with parking. Parking revenues are commonly used to help fund terminal improvements, roadway and other infrastructure enhancements, staffing, and even marketing efforts.

As important as parking is to airport operations, it's surprising how often airport administrators treat it as an afterthought. Many airports take a "build it and forget it" approach to their parking assets. After building new structures, airports administrators often operate them with minimal maintenance, repairing things that wear out or break down, but otherwise paying little attention to maintaining parking facilities.

The problem with this approach is that inadequate (or, often, non-existent) maintenance typically causes parking facilities to require major repairs well before the expected life of the garage, with critical systems, technology and infrastructure breaking down prematurely. These unnecessary break-downs often require unplanned repairs that can significantly impact operations and revenue. All too often, airports are forced to renovate or replace unmaintained structures much earlier than planned — and much sooner than capital planning will allow.

Today, however, some airports are pursuing a more proactive approach, entering into five-year on-call relationships with parking maintenance and restoration experts to minimize wear and tear within the structure, minimize repair costs and put off its eventual replacement. In addition to typical maintenance functions such as concrete restoration and equipment repair, these five-year engagements also typically include

upgrades designed to minimize deterioration of the facility and equipment breakdowns. The idea isn't just to fix things when they go wrong, but to prevent things from going wrong in the first place. It also provides an opportunity to develop and maintain a "wish list" for parking improvements, including lighting upgrades through which existing lights are replaced with energy efficient LED lighting systems; painting ceilings to improve visibility, and improve the overall atmosphere within the structure; operational changes, including adapting driving aisles and pedestrian areas; and introducing new technologies and parking products to improve customer service and enhance operations.

In addition to extending the useful life of parking structures, this proactive approach also improves the day-to-day parking experience for travelers. And when maintenance or repairs are necessary, this more strategic approach typically allows the structure to remain operational when the work is being done.

GETTING STARTED

So, how does a five year maintenance and restoration program work? When the program commences, the first step is to evaluate the current performance of parking areas. There are two areas of primary concern to be evaluated: customer service and operations. In evaluating customer service, airport managers and their operators need to determine whether parking facilities are pleasant, intuitive and convenient for drivers. This largely revolves around determining how easy it is for parkers to find a space close to their gate or other destination, and whether drivers can enter and exit the facility quickly and conveniently. The process begins with an internal inventory. Are stairways and

floors clean and well-illuminated? Is access and revenue control equipment in good working order? Are exits and entrances congested? Do parkers have to circle parking areas to find an open space? What is the condition of the existing structure?

On the operational side, the five-year program should begin with an equipment and systems audit to assure that facilities are operating at optimum efficiency and that equipment is up-to-date and operating well. This also requires an inventory. Is access and payment equipment working properly? Is facility management equipment and its software up-to-date? Are you charging the right rates? Is technology being used to cost effectively control costs? If your facility accepts credit cards for parking payments, is it compliant with

Payment Card Industry Data Security Standards (PCI-DSS)?

IMPROVING PARKING

The answers to the questions posed through the inventories will determine what remedies are required, and permit parking consultants and airport administrators to create long-term schedules for maintaining and improving facilities and equipment.



Read more at
www.AviationPros.com/12214768

ABOUT THE AUTHOR

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FINAL ANALYSIS



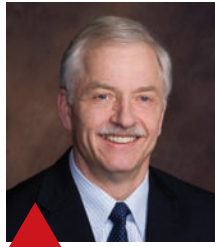
YUL OPENS NEW RESTAURANT

From left to right: Charles A Gratton, Vice President, Real Estate and Commercial Services, Aéroports de Montréal; Montreal Canadiens President and CEO, Geoff Molson; and HMSHost Vice President of Business Development Stephen Douglas cutting the ribbon May 18, at the new Avenue des Canadiens at the airport.

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went through
Sea-Tac May 27

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human resources
officer of HMSHost

“The ongoing efforts of airports and industry and the recent action from Congress – through the leadership of Senators John Hoeven and Jeanne Shaheen and Representatives John Carter and Lucille Roybal-Allard – and the Administration to allocate \$34 million to hire and provide overtime for additional TSA personnel are steps in the right direction, but it is clear that more needs to be done quickly to address what is becoming a serious headache and worry for travelers.”

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