THREE Cs TO WORK WITH TNGs

Page 20

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The Magic of AIP Funding

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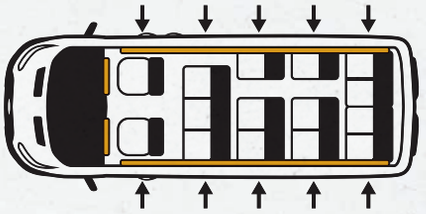
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The 2015 Transit Wagon with the high roof has a **CENTER AISLE THAT'S 6'5" HIGH.**††

††Medium roof shown.

CONTENTS



COVER STORY

16 The Love Evolution

As the Wright Amendment lifted, Love Field officials unveiled the airport's $500 million transformation. Six months later, the airport continues to reinvent itself as it moves to Wright a wrong.

FEATURES

10 The Magic of AIP Funding
Though there's no magic involved, the how's and the why's behind AIP funding for general aviation airports

20 TNCs: Go the Distance
Airports in San Jose, San Francisco, Santa Ana and Nashville develop successful partnerships with Transportation Network Companies

28 The I-Team
In the war of bird vs. airplane, infrared bird detection technology can help. The Interceptor from Pharovision arms air traffic controllers with timely information to neutralize the threat.

32 Industry Insider Jonathan Leach: Keeping it Clear At O'Hare
Winter operations in the Windy City require a combination of technology, training and teamwork

36 A Blizzard of Ideas
49th annual International Aviation Snow Symposium offers a wealth of ideas for winter ops

38 P is for Parking Revenue
How airports can boost non-aeronautical revenue and profit through innovative parking solutions

DEPARTMENTS

5 Inside the Fence
6 Industry News
27 Ground Clutter
42 Final Analysis

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Ronnie L. Garrett
Editor



Arm the TSA?

The case for not giving TSA agents guns

My friends know I shoot a handgun, and those who have seen my shot groupings have called my aim, "Scary good." I shoot a handgun for sport. I have a concealed carry license to protect myself. I grew up in an area of the country where back in the day people put gun racks in their pickup trucks and showed their friends said guns in the grocery store parking lot. It's safe to say that I believe in guns—in the hands of responsible gun owners. That being said, I do not believe TSA officers should be armed.

In March, the union representing TSA officers renewed its quest to let some agents carry guns in the wake of another airport attack. This time, a machete-wielding man attacked two TSA workers at Louis Armstrong International Airport in New Orleans. Authorities allege he sprayed one TSA officer with wasp killer and slashed a second TSA agent with his machete, before being shot by a sheriff's deputy.

The union, which represents 45,000 TSA officers nationwide, doesn't want all TSA agents armed, but rather a special law enforcement unit administered by the TSA. On the surface, the proposal makes sense. TSA agents are right there and can respond faster than police officers.

But will this notoriously under-funded government agency hold its agents to the same standards of other federal law enforcement officers? Will they require a four-year degree, mental health screenings, and polygraph tests before hire? Will they mandate that they train and qualify on their weapons for at least a week at a Federal Law Enforcement Training Center (FLETC) before being armed on the job? Will they need to train at the range for a set number of hours each month and qualify in the use of their weapon at least quarterly?

This is what TSA agents will need in order to develop the decision making skills to handle a weapon in a crowded airport environment. Essentially they will need the same training as a law enforcement officer; otherwise they'll be armed—and potentially dangerous.

Not only that, but arming TSA agents and adding additional training requirements would put these individuals at a different pay scale, retirement plan and retirement age, reports Art Kosatka, CEO of TranSecure, in a blog titled, "Screeners with Guns—Worst Idea Revisited." Are we financially prepared for that?

Not only that, but every airport already has an armed complement of police officers—with arrest authority—working within the airport setting. Maybe we need more officers instead?

I'm with Christopher Bidwell, the vice president for security and facilitation at ACI-NA, who recently said,"Armed response should be kept to law enforcement, whether that's federal or local law enforcement officers."

Arming the TSA would be like arming me in the airport. I can shoot a gun, yes. But that doesn't mean I have the same skills as a police officer, nor should I be treated as such.



INSURANCE BILL FOR TNCS

Insurers, insurance trade associations and Uber recently reached an agreement on addressing insurance gaps as they pertain to rideshare companies. At airports in particular, the contention has been who the insured party is at various legs of the rideshare journey. The TNC Insurance Compromise Model Bill will help bring clarity and consistency to transportation network company (TNC) insurance laws. Under the model, primary insurance coverage would have to be in-force during all three periods of the ridesharing experience, including the hotly contested "Period 1," during which a driver is logged in to the TNC application but has not yet matched with a fare.

Survey: Travelers Willing to Pay More to Improve Flying Experience

Fliers crave a better, more efficient air travel system and are willing to pay a little bit extra to get it, survey results released by the U.S. Travel Association conclusively show. Although travelers remain frustrated by ticket add-ons from which they derive little benefit, such as bag and change fees, six out of 10 travelers would welcome user fees dedicated to improving efficiency and choice.

"Because travel consumers are very astute, we're not at all surprised to learn that they are willing to pay for something that provides them with a tangible benefit," says U.S. Travel Association President and CEO Roger Dow. "Air passengers aren't thrilled about ancillary fees, which disappear into the airlines' pockets, or federal taxes, which disappear into Washington's pockets. But if you show them a local user fee that is tightly structured to invest in our outdated and overburdened infrastructure, they understand the difference and strongly support it.

"Fortuitously, there is an existing funding mechanism for fixing our beleaguered airports that speaks perfectly to fliers' preferences—the Passenger Facility Charge [PFC], a local user fee paid only by users of specific airports," Dow continues. "The trouble is, it hasn't been indexed for inflation in a decade and a half, while our air travel infrastructure falls further behind the rest of the world. It's time for airlines, cities, Washington politicians and the traveling public to recognize that the PFC is the answer to a host of air travel problems, and summon the will to update it for the 21st century."

Dow says that the traveler survey results add up to an overarching theme: Concern over a lack of competition among airlines. He points to survey results showing huge majorities of travelers feeling underserved by the number of carriers in their market, and opposing the rollback of "Open Skies" aviation agreements that allow foreign carriers to compete in the U.S. market and vice versa. Dow notes that just four U.S. airlines now carry 85 percent of U.S. passenger traffic—the result of the industry's radical consolidation of the last several years.

A ready solution, Dow says, would be expanding terminal space or allowing airports to purchase back unused slots and gates—exactly the type of enterprise the PFC is designed to fund. "Looking at the Big Three airlines' push to break Open Skies agreements, coupled with their vehement opposition to infrastructure investments through the PFC, it is difficult to reach any conclusion other than they are deathly allergic to competition," Dow says. "Our survey results clearly illustrate that travelers recognize this as a major problem, and want policymakers to do something about it."

Key findings of the survey conducted by Research Now:

- **58 percent are willing to pay up to $4 more per ticket** to fund airport improvements projects that would enable airports to accommodate more airlines, modernize facilities or reduce delays in and around the airport.
- When informed that taxes and airline fees currently account for 13.7 percent of their ticket price, the number of those respondents still **willing to pay the extra $4 stays at 80 percent**.
- **72.5 percent of respondents** think that having fewer airlines to choose from does not reasonably serve the needs of people and businesses that depend on flying.
- **On Open Skies agreements:** 69.4 percent of travelers think the U.S. government should not block foreign airlines from offering more flights and that instead the U.S. government should take steps to help major U.S. airlines improve their own customer service, lower airfares and become more competitive.

AIRIT ...
Announces Todd Hauptli, president and CEO of the American Association of Airport Executives, will deliver the keynote address at its 17th Annual User Conference & Symposium.

AIRPORTS COUNCIL INTL ...
Recognizes three of Louis Berger's aviation projects with six Airport Service Quality (ASQ) awards.

AUCKLAND INTL AIRPORT ...
Upgrades its baggage hall with HARMAN's JBL Intellivox Digital Beam Steering Loudspeaker Arrays.

AUSTIN-BERGSTROM INTL ...
Implements a one-stop process for international passengers to clear Customs.

AVFLIGHT CORPORATION ...
Adds another location with the purchase of GFK Flight Support at Grand Forks International Airport in North Dakota.

BWI THURGOOD MARSHALL AIRPORT ...
Will undergo a $105 million expansion that will create a new security checkpoint, a connector between concourses D and E, and add two new gates for international carriers.

CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT ...
Chooses AirIT's Virtualized Platform to enhance efficiency and improve the passenger experience.

CHICAGO DEPARTMENT OF AVIATION ...
Reports jet noise complaints hit a new monthly record—39,500—more than six times the noise complaints made in January 2014.

FAA ...
Dedicates a new $16.4 million air traffic control tower at Fort Lauderdale Executive Airport.

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INDUSTRYNEWS

Lane Aviation Opens New Customs Center



Lane Aviation, an FBO celebrating its 80th year serving aviation customers at Port Columbus International, opened a new U.S. Customs Border Patrol general aviation facility to streamline the process of clearing international business aircraft arrivals. The state-of-the-art facility will be capable of handling any size business aircraft with 21 passengers or less. Once the aircraft is cleared by customs, Lane's trained and certified line service professionals will guarantee turning around aircraft within 15 minutes.

"Columbus is a very successful city from an international business perspective," says Brad Primm, the president of Lane. "The city is headquarters to at least 20 Fortune 1000 companies and many of these corporations do business around the globe. The new customs facility will provide an easy and efficient entry point for international flights and promote Columbus as a prospective business location and opportunity for investors worldwide."

FLYNAS ...

Selects air transport IT specialist, SITA, to provide a range of passenger check-in services.

FORT WORTH ALLIANCE AIRPORT ...

Announces the construction of a new 300,000-square-foot distribution center for FedEx Ground.

GREATER ORLANDO AVIATION AUTHORITY ...

Executive Director Phil Brown signed an Environmentally Preferable Purchasing (EPP) Pledge to encourage all airport departments, vendors and service partners to incorporate environmental considerations into their purchasing practices.

THE GREATER ROCKFORD AIRPORT AUTHORITY ...

Receives a Certificate of Achievement for Excellence in Financial Reporting by the

PRODUCTSPOTLIGHT

3D-GUARD
CONTROP



CONTROP Precision Technologies Ltd. debuts the new 3D-GUARD —Advanced 3 Dimensional Video Motion Detection System. Designed for the protection of borders, strategic facilities and perimeters, 3D-GUARD is a day/night system for 24/7 automatic detection and alert of moving targets/intruders. The 3D-GUARD system acts as reliable "virtual fence" and can be installed on poles or towers, can operate as a fast deployment system or as a standalone solution. It can be controlled from a central Command and Control System (C2). Due to its automatic detection features, a single operator can control a very large number of systems over a wide geographic area from a single C2 station. The system is easy to operate and information is displayed next to the object on the display. The capabilities of this new "staring" system drastically reduce the nuisance of false alarms that are typical of other Video Analytic (VA) systems. With the 3D-GUARD only real targets will "trigger" the operator's attention and will require the operator's involvement. Comprised of two stationary cameras with fixed fields-of-view, the 3D-GUARD has a detection range of up to 1,000 meters. The two cameras can be dual Thermal Imagers (TI) Uncooled Infrared (IR) Cameras or dual Day TV Cameras.

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ARINC VMUSE
ROCKWELL COLLINS



Rockwell Collins is integrating its ARINC vMUSE and ARINC Veripax technologies with the Atkins Identity Management toolkit to capture a traveler's identity using biometrics and match it with the passenger's passport and boarding pass information. ARINC vMUSE can accommodate a range of biometrics (for example, fingerprint, facial recognition or iris scan) to deliver a plug-and-play solution that can be implemented quickly and easily. The solution enables a phased rollout of biometric processing, with airline or gate-specific rules permitting biometrics to be used only when needed. The integration will streamline passenger processing through the airport, from passenger identification at check-in to self-boarding gates.

aviationpros.com/12058358

Government Finance Officers Association for the 17th consecutive year and was recognized with an ANTN Digicast Excellence in Airport Training award by the American Association of Airport Executives.

HMS HOST ...

Was named Best Overall Food & Beverage Operator and Food Operator With The Highest Regard For Customer Service and Best Food & Beverage Brand Operator by Airport Revenue News.

HNTB ...

Announces its aviation professionals recently delivered a guest lecture for the Airport Planning course at California State University, Los Angeles.

KEARNEY AVIATION CENTER ...

Expands operations and will now be the exclusive FBO at Kearney Regional Airport.

LANDMARK AVIATION ...

Acquires Ellington Partners LP and Southwest Airport Services at Ellington Airport in Houston.

LYFT ...

Becomes the first and only Transportation Network Company permitted to operate as a ridesharing operator at Austin-Bergstrom International Airport.

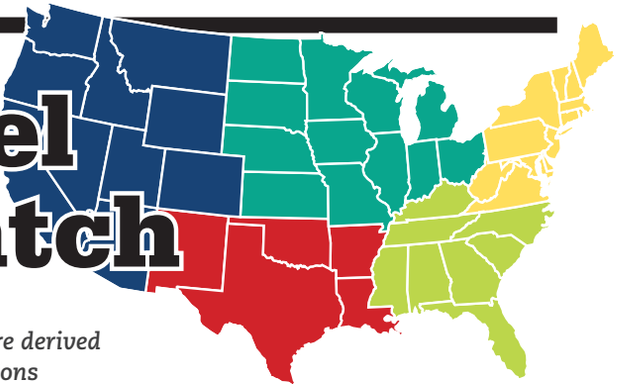
ORLANDO INTERNATIONAL AIRPORT ...

Begins $1.1 billion worth of projects and became the 39th airport in the nation to open a clean energy compressed natural gas station.

PARSONS BRINCKERHOFF ...

Appoints Marc Faulkner to resident engineer in the Chicago office.

Fuel Watch



The following fuel prices were derived from transactions completed with the AVCARD credit card during January. Not all operations sell both jet-A and Avgas. The figures for jet fuel prices will be more representative than those for Avgas, due to the higher number of transactions recorded. Prices reflect all taxes and discounts. Data is supplied from AVCARD in consolidated format; individual transactions are not disclosed.

West Coast	North Central
Jet-A: $4.08	Jet-A: $3.86
Avgas: $5.31	Avgas: $5.02
South Central	**Northeast**
Jet-A: $2.41	Jet-A: $3.83
Avgas: $5.14	Avgas: $5.26
Southeast	
Jet-A: $3.75	
Avgas: $5.01	

SASKATOON JOHN G. DIEFENBAKER INTERNATIONAL AIRPORT ...

Reports its $53 million expansion and renovations of the post-security section is nearly complete.

SKANDIA INC. ...

Names Terry Cox as the company's Flammability Manager.



ADPRO XOA 3 SECURITYPLUS REMOTELY PROGRAMMABLE OPERATING SYSTEM

XTRALIS

Xtralis released the ADPRO XOa 3 SecurityPlus Remotely Programmable Operating System for FastTrace 2 Series Remotely Managed Multi-service Gateways (RMG). Xtralis offers early and reliable detection, automatic remote visual verification through any network condition, and remote multi-level response, which improves guarding services at lower costs or enables the replacement of human guards. XOa 3 turns a FastTrace RMG into an "electronic super guard," with intrusion detection, presence awareness (loitering), automatic visual verification of fire/smoke, and multi-level response capabilities ranging from two-way audio talk-down to control of lighting, access and ventilation or any other building subsystem, all from a remote monitoring station. XOa 3 also provides unique business intelligence capabilities, using security infrastructure to monitor customer behavior to improve sales and customer service. XOa 3 expands the number of channels supported to 32 x 5Mbps IP video cameras, with up to 32 of Xtralis' award-winning analytic applications (32x32) per FastTrace system.

aviationpros.com/12058354

ENHANCED SCHEDULING SOLUTION WITH PFM

COLT INTERNATIONAL

Colt International took another step forward in providing business aviation schedulers and dispatchers with best-in-class trip planning software when it announced its Phase 2 integration with Professional Flight Management (PFM). The end-to-end software solution gives schedulers and dispatchers a better way to research destinations, check country permit requirements and make informed scheduling decisions without manually compiling data from Internet sources. Colt's PFM integration goes beyond simply pushing static trip data. It delivers a two-way connection that gives all users access to real-time schedules from inside Colt's powerful trip support technologies OFP for flight plans and Trip View for customizable flight packages, status and tracking all through a secure PFM interface. PFM accesses the OFP flight planning engine for precise flight plans, fuel burn and weather, in turn providing schedulers with calculated enroute times rather than estimated. More accurate schedules translate to safer flights, a better understanding of true flight times for executives and faster trip options for passengers.

aviationpros.com/12058368

By Robert Mark



The Magic of AIP Funding

Though there's no magic involved, the how's and the why's behind AIP funding for general aviation airports

Ask people around an airport if the acronym "AIP" means anything and most will probably nod their heads positively. But ask them for anything more specific and those responses will probably become blank stares.

AIP, or Airport Improvement Program, is a funding system that ensures airport upgrade projects, which help the facility remain open and viable, are completed. Dollars are appropriated annually by the House and Senate Appropriations Committees from the Airport and Airway Trust Fund (yes, it still exists) and are handed to the FAA, which assigns the funds to specific airports as it sees fit. In 2015, that amount totaled about $3.35 billion, a number that has remained essentially flat for years.

Though the funding remains flat, the importance of AIP has not diminished. Trevis Gardner, the vice president of operations at Metropolitan Knoxville Airport Authority, a commercial service and general aviation airport, says, "AIP [money] buys those critical capital items that are must haves for airports like runways, or taxiways, or ARFF equipment, anything that deals with safety or capacity."

Centennial Airport Executive Director Robert Olislagers agrees, calling AIP, "The lifeblood of many airports, more so for general aviation airports.

Addison Airport sits eight miles north of Dallas Love Field, and its director, Joel Jenkinson, says, "This system of paying for airport infrastructure [AIP] is not much different from the interstate highway system."

And, Elliott Black, director of the FAA Office of Airport Planning and Programming, says the agency sees AIP funding as a way to help "preserve safety, capacity, security efficiency and environmental sustainability by building and rebuilding, as necessary, the critical facilities that enable an airport to accommodate safe transportation."

However, not every airport in the nation is eligible for AIP funding. Only those listed in the National Plan of Integrated Airport Systems (NPIAS), a ledger that currently includes 3,345 existing or proposed airports in the 50 states, can vie for those dollars. The vast majority of NPIAS airports are public use. "The FAA puts a pretty high priority on reliever airports," says Black. "If the traffic from Chicago Executive, or Waukegan or DuPage airports, ended up at O'Hare for some reason, that hub would grind to a halt."

"AIP [money] buys those critical capital items that are must haves for airports like runways, or taxiways, or ARFF equipment, anything that deals with safety or capacity."

TREVIS GARDNER, VICE PRESIDENT OF OPERATIONS, METROPOLITAN KNOXVILLE AIRPORT AUTHORITY

HOW WE GOT HERE

Public funding for airports has existed in various forms since the end of World War II when the federal government developed an airport grant system funded by the U.S. Treasury. By 1970, a more sophisticated version was created through

FY2016 TRANSPORTATION BUDGET

THE OBAMA Administration's Fiscal Year 2016 budget earmarks $95 billion for transportation-related funding for projects that include aviation infrastructure improvements and transportation reforms.

Most notable is the budget's proposed $956 million investment in the Next Generation Air Transportation System (NextGen), a system meant to replace ground-based radar with satellite-based infrastructure.

The budget also proposes changes to the Passenger Facility Charge (PFC) program. Currently the fee charged per boarded passenger amounts to $4.50 but if the budget proposal flies through approvals this amount will rise to $8 per enplanement.

"Giving airports the flexibility and local control they need to implement a PFC level appropriate for their community's needs is an important first step in spurring competition in the airline industry and in helping our nation's airports remain competitive with the rest of the world," says Airports Council International-North America President and CEO Kevin Burke.

The FY2016 budget also calls for $2.9 billion in targeted airports spending through the Airport Improvement Program (AIP), a $450 million reduction to the AIP budget for 2015. This move would eliminate guaranteed funding for large hub airports, and refocus spending on "smaller commercial and general aviation airports that do not have access to additional revenue or other outside sources of capital."

"We are disappointed that while this proposal modernizes the PFC, it appears to do so at the expense of AIP," Burke says. "A significant cut like this in AIP funding ultimately hurts medium- and small-sized airports that depend the most on this grant funding for necessary capital improvement projects."

The budget also allocates $21.3 million for the hiring of aviation safety inspectors and earmarks $1.3 billion for the FAA's Aviation Safety Oversight Office.



Centennial Airport Director Robert Olislagers calls AIP the "lifeblood" of general aviation airports.

the Airway Development Act funded by the then newly created Airport and Airway Trust Fund. The program we now know as AIP has remained the same since about 1982.

The Trust Fund is fed essentially by excise taxes collected from people who use the system, much like Interstate highways. Taxes are levied on domestic airline passenger tickets, domestic airline passenger flight segments, international passenger arrivals and departures, air cargo way-bills, and dollars paid for the right to provide mileage awards.

Closer to the heart of many general aviation airport managers are taxes collected on aviation fuel. The FAA collects just over $0.19 per gallon of 100 Low-lead (100LL) and approximately $0.22 for each gallon of Jet-A from general aviation operations. In 2012, a $0.14 per gallon surcharge was added for fuel used in fractional ownership operations. The airlines' fuel tax is approximately $0.04 per gallon.

At first glance it might appear the airlines are not paying their fair share of the tax when general aviation pays five times the amount per gallon. But the numbers are all relative. For one thing, the airlines normally gulp considerably more fuel than general aviation, making their total annual tax bill huge.

The debate about which segment of aviation does or should pay more than another —commercial versus general aviation—flares up ever so often as does the argument about which airports should receive more or less AIP money. Years ago, the airline trade association, Airlines for America (A4A), then known as the ATA, created a massive media campaign known humorously as "Aunt Edna," that portrayed a herd of little airplanes carrying just a few people clogging the ramps in front of airliners carrying hundreds. Supporting their claim, the airlines said, was the host of taxes that they charge passengers in the price of their ticket.

Before you start flipping to support the airlines and large airport side of the debate, it's crucial to mention passenger facility charges (PFC), funds—currently at $4.80 per flight segment — that although regulated by the FAA, are treated more like local dollars. Commercial airports can generate significant amounts of regular cash flow from PFCs, revenue streams that allow them to go to Wall Street to issue bonds against major projects. General aviation airports are not, however, eligible to impose PFCs, which is why AIP funds are so important to these airports.

Airports are allowed to add a fuel flowage fee that becomes a direct source of revenue for these airports. "Addison's flowage fee is $0.12 per gallon and has not changed since October 1994," says Jenkinson. At Centennial, the flowage fee is $0.15 per gallon.

HOW THE CASH FLOWS

Despite the focus on actual dollars, Black reports that the airport project approval process, "never begins with funding. It starts with many years of planning to help airport managers determine what facilities they need upgraded to accommodate aeronautical demand."

> "The FAA puts a pretty high priority on reliever airports. If the traffic from Chicago Executive, or Waukegan or DuPage airports, ended up at O'Hare for some reason, that hub would grind to a halt."
>
> ELLIOTT BLACK, DIRECTOR, FAA AIRPORT PLANNING AND PROGRAMMING

At Knoxville, Gardner says, "The planning for our runway project took almost five years from the moment we first began thinking about it." While at Centennial, Olislagers reports his taxiway Alpha rebuild project, set to begin this spring, first came to mind, "a long time ago."

The Addison runway project, a full-depth repair at the ends and an overlay, appeared on the planning radar 10 years before the project began in 2011. As a single runway airport, Jenkinson mentions the airport and the town's efforts to make the most use of the runway's downtime—nine full weekend closures. "The airport used the downtime to add new edge lights, new runway guard lights and install new PAPIs [precision approach path indicators]," he says.

AIP funds are divided into two categories: Entitlements and discretionary money, with relatively simple formulas used to determine which airports are eligible for how much cash. AIP funding doesn't cover the entire cost of an airport project, however, normally just 90 percent. That means a busy general aviation airport in need of a $10 million runway upgrade needs access to $1 million before the first shovel of dirt is turned. Rural general aviation airports, with perhaps only $150,000 in annual revenue, are often hard pressed to find even $100,000 to match a $1 million project.

"Most small general aviation airports are often funded by money from the general revenue of the local community. If the manager needs to ask the city council for that match,

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they need to be ready to present the benefits of their airport in a way that justify that large sum. The airport might be the only link to larger cities during a natural disaster for instance," says Olislagers

Before a project is approved and funded, there are a series of reviews that guarantee nothing about the work will interfere with people, animals or other air traffic. Only then will the FAA listen to a request for financial assistance. Gardener says it's also important to remember that, "AIP funds are finite, so you have to make the highest and best use of them. The FAA will only pay for repair projects, for example, not the regular upkeep of facilities like runways or taxiways."

And just before the money is dispersed, the FAA makes the airport sponsor sign grant assurances, documents that explain the requirement to keep the airport open for business once the community accepts federal money. This is the hot button issue at the heart of the debate around Santa Monica Municipal Airport and certainly was before the closing of Chicago Meigs Field.

The airport managers interviewed for this article agree the best way to make the AIP funding mechanism work most effectively is to create and maintain a good relationship with the local Airports District Office. In Texas, an AIP block grant state, where the Texas Department of Transportation (TexDot) acts as the AIP office, Jenkinson says, "They realize the importance of reliever airports. I think TexDot does an excellent job of balancing the needs of larger reliever airports that require bigger projects, against smaller community lifeline airports."

Despite the differences in dollars spent keeping a variety of different airports humming along smoothly, Black explains the philosophy of how everything fits together in the National Airspace System as follows: "Remember when United 232 crashed in Sioux City back in 1989? One-hundred-eleven people perished, but 185 survived. In addition to the skills of Captain Al Haines and his crew on that DC-10, the reason so many people survived was that there was a nearby airport that been properly planned and was operating and equipped for such an emergency. Sioux City Airport personnel just happened to have completed their annual emergency drill a few weeks before the accident. I guarantee you the people who bought tickets on that United flight [between Denver and Chicago] had two airports in mind and never once gave a thought to whether or not there was a good airport available in Sioux City in case of an emergency. [That's exactly why] AIP funding is there to support the entire airport system."



Centennial Airport, above, is one of the leading general aviation airports in the nation, and it relies heavily on AIP funds for projects.

ABOUTTHEAUTHOR

Robert Mark, CEO, CommAvia

Mark, a 35-year aviation-industry thought leader, is CEO of CommAvia, a marketing communications group delivering leading edge media to the aviation industry. Mark, a commercial pilot and certified flight instructor, has logged 7,000 flying hours in a variety of airliners, business jets and training airplanes. He also spent 10 years as an air traffic controller and supervisor with the FAA. Mark publishes the award-winning industry blog, Jetwhine.com. He welcomes your comments at rmark@commavia.com.



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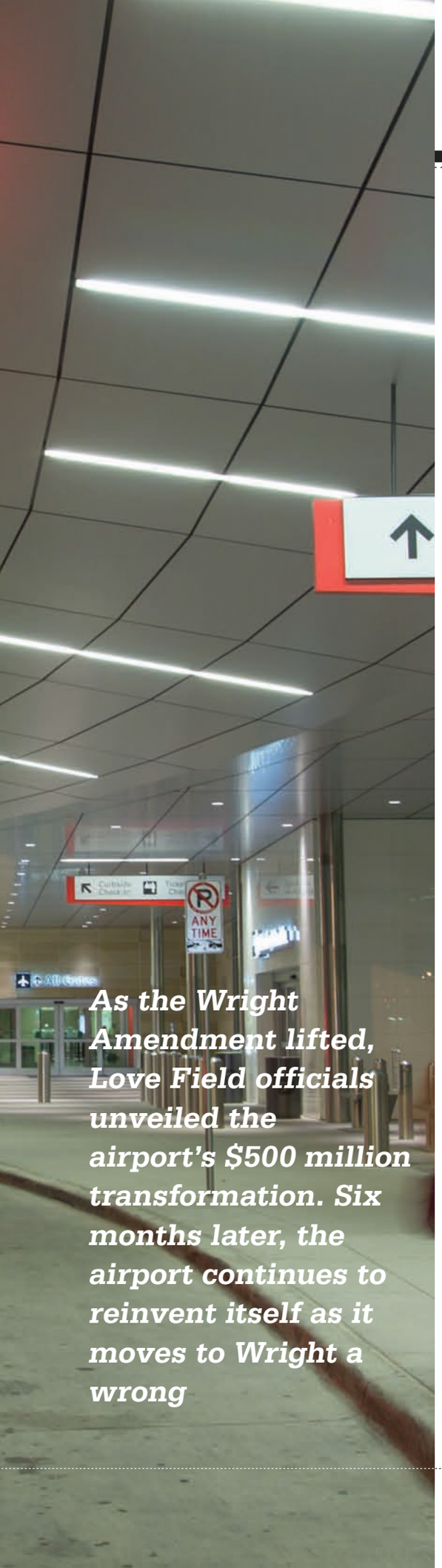
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By Ronnie L. Garrett



The LOVE EVOLUTION



As the Wright Amendment lifted, Love Field officials unveiled the airport's $500 million transformation. Six months later, the airport continues to reinvent itself as it moves to Wright a wrong

When the legislature righted a wrong by lifting the Wright Amendment on October 13, Dallas Love Field officials felt prepared.

They had been working toward the ending of more than three decades of federal restrictions on the airport's outbound traffic since 2006; the date when Southwest Airlines, American Airlines, the cities of Dallas and Dallas-Fort Worth finally agreed to lift the Wright Amendment's flight restrictions in October 2014.

Immediately after reaching this consensus, airport officials laid out the Love Field Modernization Program to Wright-size the airport. Marketed as the Love Evolution, the $519 million plan would replace aging airport facilities and include the construction of a new 20-gate terminal. They hired Corgan Associates to design the facility and picked Hensel Phelps Construction as the main contractor.

Work began in 2009 and ended in 2014—right before the Wright Amendment restrictions flew away. The project, with a tab that came in approximately $19 million under budget, included 637,000 square feet of new construction and 255,000 square feet of renovated space. The state-of-the-art facility designed with the passenger in mind included new baggage and ticketing halls, an efficient security checkpoint, baggage and handling systems, and an expanded concessions space.

Love Field was ready for the next leg of the journey—and then it actually took off. And there were a few surprises, reports Mark Duebner, Love Field's director of aviation.

"We redid everything," he says. "We were ready. We have not ended up with more [traffic] than we thought we would; it's more a question of how quickly we've grown."

Though a few issues have cropped up as traffic exploded, Duebner sees only positives in the airport's future. "It hasn't been perfect. It hasn't been without challenges. And I'm sure we'll see some challenges in the future, but I think it's safe to say that overall the changes we've made have been a great success."

THE WRIGHT AMENDMENT COMPROMISE

THE WRIGHT Amendment, with its restrictions on Dallas Love Field, was nearly 35 years old when it was lifted on October 13, 2014. The Amendment, enacted when Dallas-Fort Worth International Airport was just six years old, limited potential competition for that airport coming from Love Field. The law named after its author, Rep. Jim Wright, initially limited nonstop flights from Love Field to Texas and four adjoining states. Eventually that was changed to eight states. The compromise that led to the lifting of the law included allowing airlines to fly nonstop to any U.S. destination out of Love Field. International cities remain off-limits to nonstop service. The changes also required the airport to replace existing gates at Love Field with a new 20-gate terminal, and limited capacity to 20 gates.

TRAFFIC TAKES OFF

Love Field's traffic has hovered at approximately 4 million enplanements for years, with slight ups and downs due to fluctuations in the economy. That number abruptly changed as airlines began adding flights to the city-owned airport, six miles northwest of downtown Dallas. Says Duebner, "The Wright Amendment ended in October 2014, and by December 2014 we were 46 percent over December 2013."

The December numbers are not a fluke, either. The launch of dozens of new flights has prompted Love Field officials to boost their estimates on the number of enplanements the airport will see in 2015, according to Duebner.

He explains planners expected to see passenger boardings hit 6.5 million by 2017 or 2018. Now planners project the airport will achieve that by the close of 2015. "We are somewhat surprised that we'll hit that number sooner than originally projected," he adds.

Duebner attributes the accelerated rate of enplanements to new flights rolled out by Southwest Airlines and Virgin America. Because of strong load factors on their initial rollouts, Southwest Airlines beefed up its schedule from 118 flights to 166 as of this month and Virgin America, which started out with nine flights, increased to 13 in February, hit 19 this month and will reach 20 in September. Delta Air Lines replaced 50-seat regional jets with 110-seat Boeing 717s for its five flights a day to Atlanta. In total, the airport will move 191 flights a day by September 1, just shy of its maximum capacity.

"We will be close to 10 flights per gate per day, which is getting to the edge of the maximum number of flights we're going to be able to handle," says Duebner. "We thought we'd see an increase of maybe 1 million passengers in 2015 but it looks like it will probably be double that. As a result, we're going to be bumping up against the maximum capacity of the airport's 20 gates much sooner than expected."

Does that mean additional gates for the Big-D airport's near future?



Dallas Love Field's $500 million renovation included an expanded baggage claim area.

> "It hasn't been perfect. It hasn't been without challenges. And I'm sure we'll see some challenges in the future. But I think it's safe to say that overall the changes we've made have been a great success."
>
> **MARK DUEBNER, DIRECTOR OF AVIATION, DALLAS LOVE FIELD**

"No," says Duebner. He explains the legislation assigns Love Field, which sits on 1,300 acres and is virtually landlocked on all sides, a 20-gate maximum. "We are prohibited from adding more gates," he says. "Once we get to 10 or 11 flights per day, per gate, that's as much as the airport is really going to be able to handle.

"It may be the limiting factor of Love Field as we move into the future; that 20 gates is all we have and we have to get the most value possible out of those 20 gates," he adds.

PARKING PRESSURES

Airport officials noticed the first impact of increased traffic a little more than a month after the Wright Amendment restrictions ended.

The *Dallas Observer* reported "by midday Thanksgiving Day, Love Field's 4,000 parking spaces were not enough. Each one had been sold and parked in, leaving those arriving to take afternoon flights circling hopelessly or forced to go home and take DART back to the airport."

While holiday traffic might be blamed, Duebner maintains it wasn't the only reason for the problem—the increase of flights also led to the crunch.

In 2008, planners forecasted the airport had enough parking spaces to meet demand through 2018, but with the faster than anticipated growth in flights after October 13, the number of parking spaces will quickly fall short. As the *Dallas Observer* reported, "Love Field needs more spaces or a major change in culture that makes people previously unwilling to take the train more willing to do so."

Though Duebner says the Love Field

Modernization Plan was sound, the need for parking spaces emerged faster than expected, and the airport anticipates being approximately 1,000 spaces short by 2016.

Airport officials reacted to this new pressure as quickly as new flights took off. By December, they had unveiled a plan to add 4,000 covered parking spots by building a massive, five-level parking garage across from the Love Field ticket hall. This project adds to the parking provided by two existing parking garages already onsite, which offer approximately 7,000 spaces. There is also valet parking available that adds around 200 spaces.

"Because of the strength in bookings and the success of the routes being flown, we had to move quickly to get a new garage constructed," he says. "That new garage should be able to handle demand up to the maximum we anticipate. We just thought we'd have a little more time to plan, design and construct it."

Instead construction will begin by May and will be complete in late 2017. "The need is there so we're operating on a very accelerated basis for that project," he says.

In the meantime, a parking quagmire existed that airport officials needed to quickly resolve. Duebner says they've already taken steps to mitigate the situation.

Daily parking rates will increase by $3, which officials hope will help encourage travelers to arrive at Love Field via DART or other means. In addition, the airport asked its 1,100 employees to begin parking in a vacant garage on Lemmon Avenue. Southwest Airlines is also building a new surface lot, offering around 700 spaces near the airport entrance, to handle overflow.

"We'd hate for all the goodwill from the new airport to be diminished because people had a challenge finding available parking," Duebner says.

SISTER AIRPORT AFTER SHOCKS

The City of Dallas Aviation Department oversees three airports, including Love Field and Dallas Executive Airport. And some are predicting, Dallas Executive Airport, the city's general aviation airport, may also experience a few after shocks as a result of the lifting of the Wright Amendment's restrictions.

Though the airport announced a year ago a $35 million plan to extend its main runway to 7,136 feet and rebuild both of its runways to handle heavier loads, these projects are even more critical now. Love Field currently sees 85,000 general aviation operations a year, and Duebner predicts those activities may eventually move to Dallas Executive Airport as Love Field's commercial traffic picks up.

"The runways there were pretty old and due for reconstruction," he says. "However, as commercial traffic builds at Love Field, it will probably become less desirable for the general aviation community to try to operate out there. It goes hand in glove, that we have a general aviation airport ready to handle more general aviation traffic."

It's safe to say as the airport adjusts to a Wright-free future it will continue to evolve and reinvent itself. But Duebner says they're up for the challenge."Love Field is a tremendous asset to our city," he stresses, noting that any issues they encounter are but minor hiccups leading the 98-year-old airport toward a brighter and Wright-sized future.

> "We thought we'd see an increase of maybe 1 million passengers in 2015 but it looks like it will probably be double that."
>
> MARK DUEBNER, DIRECTOR OF AVIATION, DALLAS LOVE FIELD

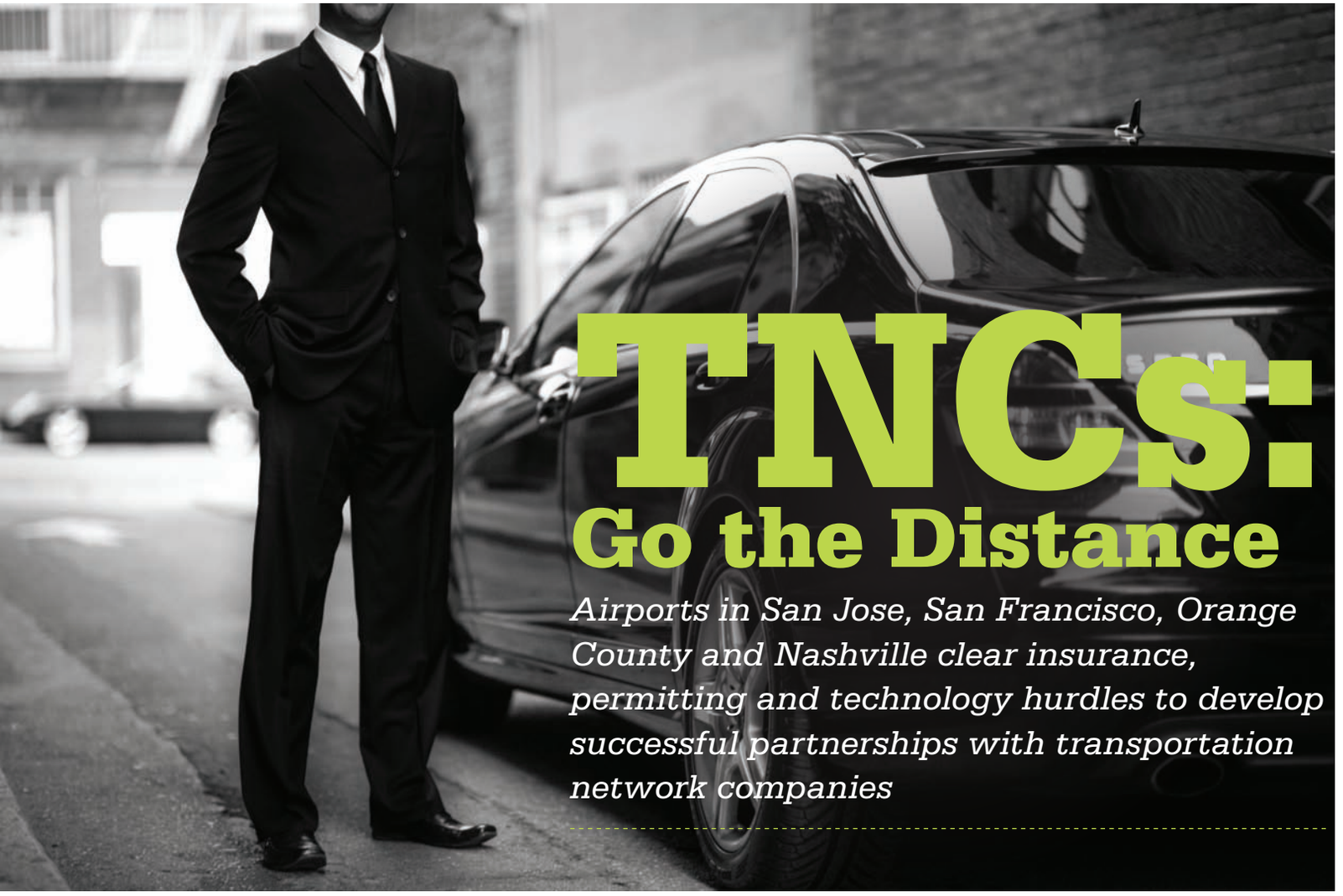
A CLOSER LOOK AT THE LOVE EVOLUTION DALLAS

Love Field dubbed the Love Evolution as its official brand for a five-year, $500 million modernization project. Highlights from the project, largely completed in 2014, include the following:

- **A new 20-gate**, centrally located concourse built above the former concourse. The new facility offers wider walkways, higher ceilings, eco-friendly building materials, high-efficiency lighting, more power outlets and USB chargers, and free WiFi for up to 30 minutes.
- An **expanded baggage** area.
- **New** ticketing area.
- **A revamped concessions program** that offers a distinctively Dallas flavor, including restaurants like Sky Canyon, Cantina Laredo, Cool River Café and Dickey's, and shops like Bill Bob's Texas and Soubu/Bliss. "It really gives you a sense of place," says Mark Duebner, Love Field's director of aviation.
- **Retaining** the lobby's iconic **Terrazzo World Map**, which shows the world as it was in 1959, including many countries that no longer exist.
- **Expanded** curbside and roadway.
- **Constructed to achieve** Leadership in Energy and Environmental Design (LEED) Silver certification.
- **A rebuilt** main lobby.
- **An $11.6 million** fuel hydrant system.
- **A new cell phone lot** offering 45 parking spaces where people can wait to pick up passengers.
- **Nearly $3.5 million in artwork** that's front and center. The feast for passengers' eyes includes a work titled "North Texas Sunrise," by Texas artist Dixie Friend Gay; "Blueprint of Flight," a blue painted glass piece that lines the entryway to the concourse; and "Sky," a public art collection. "It [the art] is nothing intrusive but it's visible and makes it a really great space," Duebner says.

Duebner, who has been with the airport since 2011, adds he has enjoyed being a part of the whole process. "It's been great for the airport, it's been great for the city, and it's been great for passengers," he says. "We couldn't be more pleased with how everything has turned out."

By Ronnie L. Garrett



TNCs: Go the Distance

Airports in San Jose, San Francisco, Orange County and Nashville clear insurance, permitting and technology hurdles to develop successful partnerships with transportation network companies

Passengers appreciate the three Cs of TNCs—convenience, customer service and cost, says Bob Swensen, airport operations manager of landside services for the City of San Jose Airport Department. "These three Cs are the reasons transportation network companies (TNCs), like Uber and Lyft, are so popular and why they are in such demand for air travelers," he says.

Swensen says meeting passenger demand and boosting passenger experiences rank high among the reasons why airports in San Jose, San Francisco, Orange County and Nashville, Tenn. have partnered with rideshare companies.

But when you consider that Uber alone is in 290 cities and 55 countries across the globe, and only a handful of U.S. airports work with these companies today, such partnerships have a distance to go. "Most airports have yet to develop a workable approach to the unique legal and logistical challenges presented by car sharing and ridesharing services," writes Paul J. Fraidenburgh, an attorney in Buchalter Nemer's Aviation and Aerospace Practice Group, in a blog titled, "Sustainable Airport Policies for Car Sharing and Ridesharing Companies."

As ridesharing services change the ground transportation game, airports will need to pick up some new skills. Technological limitations, insurance liability concerns, permitting issues, trip tracking and fees, payments and airport access are all issues that must be hammered out before TNCs become a regular fixture at the airport curb.

Instead, some airports have opted to prohibit these companies from operating on airport grounds. In fact, just last fall, Uber suspended pickups at Pittsburgh International Airport after authorities reportedly ticketed its drivers.

But the tide is turning. Nashville International Airport officially added rideshare companies to its ground transportation policy in September. San Francisco International Airport began permitting drivers in October and launched a pilot program to work out the kinks before making TNCs a permanent fixture. San Jose allows TNCs to drop off but not pick up passengers while Orange County approved an operating permit in March.

Fraidenburgh reports non-airport regulators are also beginning to appreciate that ridesharing services differ from taxi companies and as such should not be subject to the same regulations. In September 2013, California became the second state (behind Colorado) to provide a regulatory framework for TNCs, defined by the California Public Utilities Commission (CPUC) as any organization that "provides prearranged transportation services for compensation using an online-enabled application (app) or platform to connect passengers with drivers using their personal vehicles." The Illinois House of Representatives followed suit in March when it passed HB 4075, which will implement a set of regulations specific to ridesharing services.

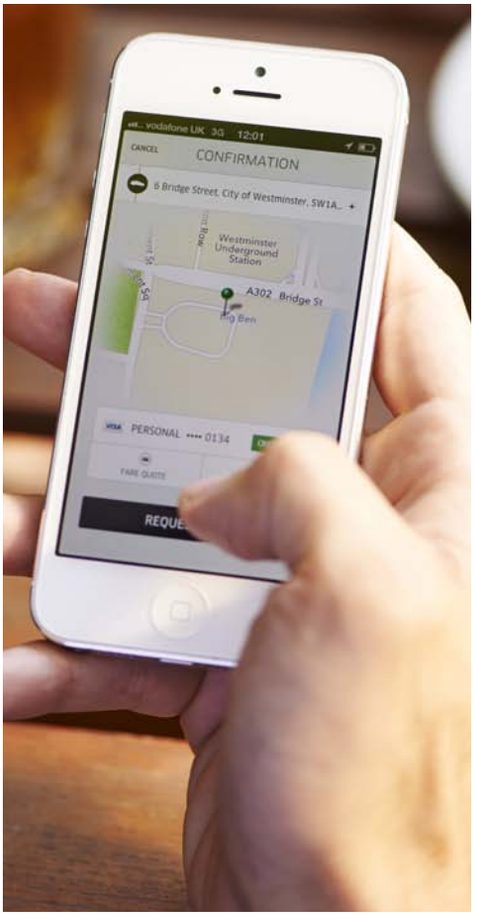
It appears this regulatory framework was exactly the impetuous some airports needed to wade into TNC waters. "What really allowed us to move forward was the regulatory framework provided by the State of California," says Doug Yakel, public information officer for San Francisco International Airport.

Jenny Wedge, spokesperson for John Wayne Airport, agrees. When this California airport first considered working with TNCs, they found six companies operating locally with permits from the CPUC. The airport also requires these firms to obtain an additional permit. "We were able to create a permit that speaks specifically to the way TNCs operate," she says. "We addressed it because we wanted to be able to safely and fairly allow these operations at John Wayne Airport."

These trendsetters, who are paving the way for other airports to foster similar partnerships, have found that by developing practical sustainable policies addressing issues such as permitting, service monitoring, background checks and vehicle inspections, insurance and revenue sharing, they've added a new non-aeronautical revenue stream.

During the first month of its pilot program, San Francisco recorded 143,067 rideshare trips with the TNCs paying $3.85 a trip. That's $550,807 in non-aeronautical revenue in a single month! "There is a definite revenue stream that will be generated by TNCs operating with authorization from the airport," says Swensen.

Rideshares have arrived at the airport, and Yakel stresses, airports have two options: They can prohibit operations and ticket drivers oper-



APP-BASED GROUND TRANSPORTATION TRACKING SYSTEM THE AMERICAN

Association of Airport Executives (AAAE) and San Francisco International Airport have announced the establishment of a system that tracks app-based ground transportation (ABT) transactions in the airport environment within a designated GPS "geofence" area for fee calculation, roadway planning and facility improvement efforts.

AAAE will be providing this service under contract with the airport for Uber, Lyft, Sidecar and other ABT providers. The system was developed by the San Francisco airport and licensed through AAAE for use at airports across the country.

"AAAE delivers service, innovation and results for our members," AAAE President and CEO Todd Hauptli states. "We congratulate San Francisco on its groundbreaking efforts with app-based transportation companies and we are proud to bring this elegant revenue tracking solution to airports all across the country." He continues, "This is a win-win approach for airports to prevent continued revenue leakage and for users and providers of app-based ground transportation services."

"We are proud to be an industry leader, by creating a solution for tracking app-based ground transportation," says San Francisco International Airport Director John L. Martin. "We appreciate the partnership with the AAAE to make this system available to airports across the United States."

Airports interested in utilizing this new service should contact AAAE Executive Vice President Carter Morris at (703) 824 0504 or Carter.Morris@aaae.org.

ating at the airport without permission or find a way to partner with them. "There will always be some number of folks who attempt this, even if it's not permitted," he says. "We were motivated to recover the fees that are necessary to maintain and manage our roadways through this activity."

TRIP TRACKING TECH

At the heart of the TNC debate is a physical piece of equipment known as an automatic vehicle identification (AVI) system. "There were issues with how you service it, who is responsible for it, how you get new vehicles outfitted with it, and how do you replace the AVI transponders," says Lane Kasselman, a spokesperson for Uber.

Many airports utilize AVI transponders, which are equipped with radio frequency identification, to queue ground transportation as needed and record trips to collect trip fees. However, this technology—while it works very well—did not make sense to rideshare companies who may have four times the number of drivers on the road.

"TNCs are a different animal," says Swensen. "They've got thousands of drivers out there. We as an airport decided we were not going to issue AVI tags to thousands of drivers."

Shannon Sumrall, spokesperson for Nashville International Airport, which became the first airport in the nation to begin permitting TNCs back in September 2014, agrees the transponder issue became a major sticking point in initial negotiations. "AVI transponders are expensive, and companies have to pay for them," she says.

Forrest Swonsen, associate vice president for TransCore's Airport Systems & Services, a Nashville-based firm that provides high-end tracking technology for airports and tollways, adds that just from an operational perspective there are challenges. Let's say, a limousine company is enrolled at the airport, but its drivers also do Uber trips, and the airport negotiated a different fee structure for Uber trips. "We're going to get an AVI read, whether it's an Uber trip or a regular trip," Swonsen says.

Airports found they could solve these problems by tapping into the technological platforms TNCs already had in place. Rideshare companies connect with customers through an app on their smartphones. In every TNC transaction, there's a driver for the vehicle, a passenger and a company that hosts the app. "The one thing that pulls all three of these pieces together is GPS," says Swonsen. "Through GPS you know where the driver is, the vehicle they own that's in the program, where the customer is located, and then the company pulls all of those pieces together and creates an electronic way-bill to create a transaction. Airports could get a summary of that trip through the electronic way-bill."

Now add to that geofencing, which uses GPS to define geographical boundaries. This technology allows an airport to set up a virtual perimeter that triggers a notification (and corresponding fee payment) every time a TNC driver arrives to pick up or drop off a passenger. "This system sets up an 'electronic' fence around the airport," Swensen explains. "Whenever a TNC accepts a ride and activates the app, the

> "Most airports have yet to develop a workable approach to the unique legal and logistical challenges presented by car sharing and ridesharing services."
>
> PAUL J. FRAIDENBURGH, ATTORNEY, BUCHALTER NEMER'S AVIATION AND AEROSPACE PRACTICE GROUP

RIDESHARE LANDS AT THE JET CENTER

FOLLOWING the trend set by rideshare companies like Uber and Lyft, locally owned Napa Valley Tours and Transportation (NVTT), which provides transportation services to Napa Valley Jet Center' customers and the community beyond, recently released an the on-demand transportation app, NVT OnDemand.

"This is a real game changer," says Michael Graham, founder and owner of NVTT. "This app allows us to provide the service Napa loves at the fingertips of its residents and visitors."

"Rideshare apps are going to dramatically change transportation for hire," says Michael Basayne, NVTT director of corporate development. To stay on the cutting edge and provide the services its customers want, the firm opted to add its own app.

Graham notes that while NVT OnDemand will service the City of Napa to start, it plans to increase its service area in the near future to the northern parts of the Napa Valley including Yountville, St. Helena and Calistoga. Sonoma and Solano County are in their sights as well.

NVT OnDemand contains a Ride Now function that allows users to request a chauffeur from anywhere within Napa. Users may choose one of two vehicles to bring them to their destination: a sedan or an SUV. After selecting the destination and vehicle that suits the request, users will see an exact quote of their trip before and after gratuity prior to submitting the request.

According to Graham, this service will cost not much more than a taxi. "In order to be competitive, we need to make our prices affordable," says Graham. "Having a fully loaded Cadillac XTS take you to dinner and back again at a few dollars more than a taxi is a steal when you compare it to other alternatives."

A function that separates this service from other ridesharing services is the ability for users to request an on-demand, hourly charter from the app. Customers simply download the app by scanning a QR code, prominently displayed at Napa Valley Jet Center, or by visiting the Itunes or Google app stores

"This app will be sort of a win-win scenario, where our vehicles will be more fully utilized and our customers will receive a service they want," says Basayne. "We have a good relationship with Napa Jet Center and it provides another option for their customers."

geofence picks up on it, tracks it, and later breaks the geofence as they leave."

Sorting out the technology became one of the reasons San Francisco entered a 90-day pilot with TNCs. This pilot granted permits, during which time airport officials reviewed how many vehicles came in and out of the airport, whether the airport roadways and structure could support the business, and how trips would be counted and reported. Kasselman adds San Francisco International Airport quickly found that a solution was close at hand. Rideshare companies already collected the information they needed; they simply needed a means of transferring that information to the airport.

The pilot produced a system that tracks app-based ground transportation (ABT) transactions in the airport environment within a designated GPS "geofence" area for fee calculation, roadway planning and facility improvement efforts. San Francisco later partnered with the American Association of Airport Executives to license the product for use at airports across the country.

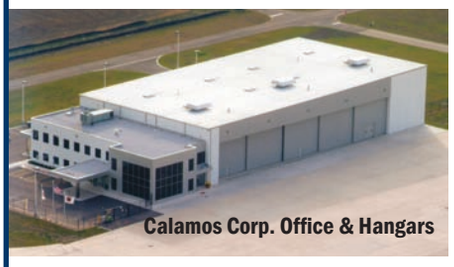


"There is now literally no need for any kind of equipment at the airport to physically register when a vehicle enters and exits because … through GPS tracking we're able to determine exactly when a rideshare vehicle enters airport property on a trip and we communicate that information directly to the airport," Kasselman says. "All of the infrastructure is already there, and there's no additional cost for the airport, other than on the engineering side."

Nashville airport uses a similar geofencing system to track rideshare trips. Sumrall says

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the airport set up the geofence parameters and charges drivers a trip fee once they enter this area. They have 20 minutes to pick up or drop off, or they will be charged again.

And, San Jose airport's system will even separates pickups from drop offs. Swensen explains this was key because the San Jose City Council recently voted to allow anyone to drop off at the airport free of charge. "Ground transportation companies will only pay for pickups," he says.

While the technology exists, TransCore's Swonsen questions whether it is enough. Currently, the software provides a trip summary to airports. "Airports basically get a summary report and a check," he says. "At the end of the day it would probably be best for everybody, certainly the airport, to have TNCs send electronic way-bill information instead. However, rideshares are hesitant to provide raw electronic way-bill information—they'd rather summarize it in a report."

But Bakari Brock, director of business development at Lyft, says current technology offers complete transparency. "With this technology, we're able to monitor when drivers enter and exit the property, and accurately transmit all information back to the airport," he says.



NAME THE INSURED

Insurance became another hurdle for rideshare companies to clear. Yakel says TNCs needed to obtain commercial insurance coverage to put them on parity with other forms of ground transportation. However, at least initially, TNCs viewed themselves as "peer-to-peer" services not commercial transportation companies. "Our contention all along was that TNCs are for-profit companies that derive their revenue from bringing drivers and riders together," Yakel says.

State regulatory agencies leveled the playing field by requiring commercial insurance of $1 million in liability coverage per trip as well as $1 million in uninsured and under-insured motorist coverage for periods of livery service.

Then the issue became where commercial insurance coverage began. There are essentially three zones of coverage, Kasselman explains. The first is when the app is off and the driver is not engaging in rideshare services. Here, the driver's personal auto insurance coverage is in place. The second is when they have the app turned on, and they are available, but are not on a trip. Personal insurance coverage applies here because the driver is not engaging in livery service. The third period is during livery service and that's when commercial insurance comes in. TransCore's Swonsen says the concern has been what happens if no one is in the car, but the driver is at the airport when an accident occurs?

Though the CPUC developed insurance regs, they also left it open for airports to place additional requirements upon TNCs. San Jose officials felt the required coverage put the airport at risk and took advantage of this structure to set additional insurance requirements.

Swensen explains the CPUC rules stated that once the TNC was transporting a customer they became the primary insured. "But we wanted the TNC to be the primary insurer the entire time the driver was on airport property," he says.

TNCs say these are things they're willing to work out with airports. "As these policies are developed, insurance is probably the thing that's being discussed the most," Kasselman says. "It creates this awkward environment, however … because taxi services might have much lower insurance requirements."

> "There is a definite revenue stream that will be generated by TNCs operating with authorization from the airport."
>
> **BOB SWENSEN, AIRPORT OPERATIONS MANAGER OF LANDSIDE SERVICES, CITY OF SAN JOSE AIRPORT DEPARTMENT**

SETTING THE STAGE

Staging areas for rideshare vehicles also rears its head in talks with airports, admits Kasselman. Most airports let rideshare drivers mill around just outside the airport, which for a smaller airport works fine, but at an airport the size of Los Angeles International Airport, it becomes an issue. "If you're at a mid-sized airport, there's no large areas for queues, but there are not as many vehicles going to and from," he says. "But at large airports, there needs to be holding areas for drivers to wait or the area becomes quite congested."

The challenge becomes getting to passengers quickly in these cases because without a holding area, rideshare drivers get caught up in a traffic bottleneck at the ground transportation entrance. "Regulating flow becomes a real challenge for airports," Kasselman says. And it doesn't end once they get to the airport curb, Kasselman says the issue then becomes: "How do you reduce curbside churn and make that more efficient?"

Wait space is a significant challenge, agrees Yakel. Airports need to look at how to integrate a new form of ground transportation into an existing footprint. "Some airports have more real estate to grow than others," he adds.

Nashville opted to provide rideshare companies a spot on its property by its maintenance facility. TNC drivers can sit there and wait for passengers, and they do not get charged. Uber and Lyft also rent parking spaces where drivers can wait. "We just didn't want them hanging out on the roadway, and if they do, they will be charged multiple times," Sumrall says.

When San Jose is able to begin issuing ground transportation permits to TNCs, rideshare companies will be designated pick up areas on airport property. "Airports have been struggling with whether or not to provide a staging area for TNCs on airport property," says Swensen. "We decided we don't want to do that. We feel it's a prearranged service where the TNC does not provide the service unless it's requested by a customer. There is a definite difference between TNC operations being in a prearranged mode versus an on-demand mode like a taxi, therefore we are approaching them differently."

At the same time, Yakel says, "If you're going to integrate a new form of transportation as a public agency, you're obligated to hold everybody to the same standard." Besides addressing insurance and technology, the airport also requires rideshare companies to adhere to rigorous standards for background checks and vehicle inspections, he says.

As airports in California and Tennessee have already learned, when airports and TNCs throw a few more Cs—cooperation, communication and collaboration—into the mix, they level the ground transportation playing field and provide a service passengers want and appreciate for its convenience, customer service and cost.

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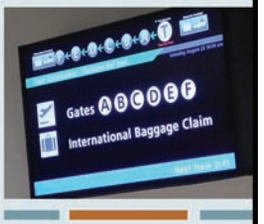
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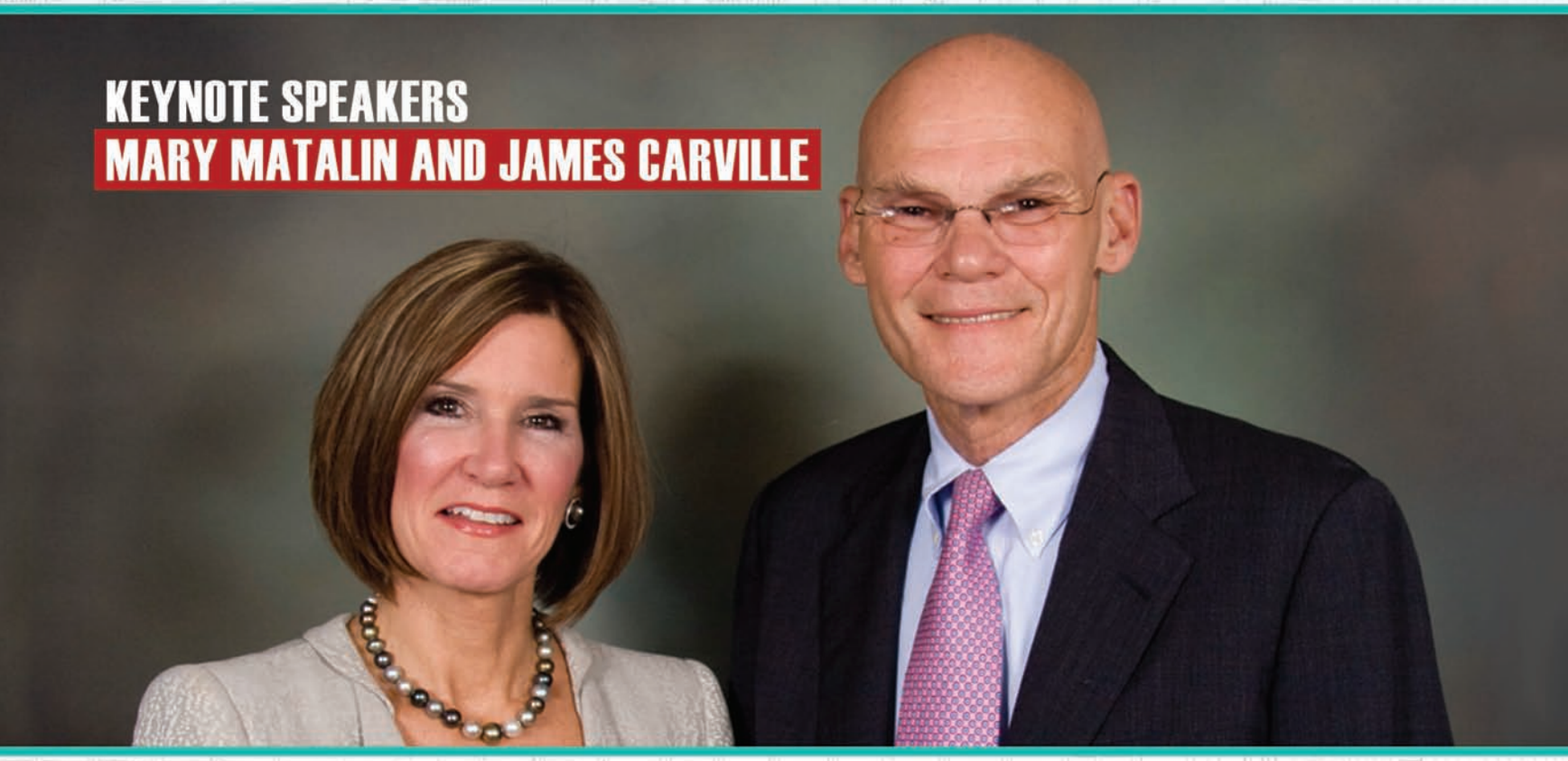
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Let's Celebrate!

A big part—a huge part—of customer service is getting flights in and out of airports, on time, every time, even in lousy weather. Let's celebrate the individuals who make this happen!

Winter is over on most days in most places, excluding the Boston area where summer will be celebrated on Thursday, July 16 only. Spring is here—or so they say. At least at my home in east Tennessee, the sun shineth and we can go outdoors in only a light jacket. Let everyone shout hallelujah!

All of this means that it's about time for the annual International Aviation Snow Symposium (IASS). This takes place every year in Buffalo, New York, in late April. This year it starts on April 18. I wonder if the meeting planners realize the historic significance of that date. Probably not—but, if we cite that wonderful poem by Henry Wadsworth Longfellow, probably everyone will remember:

Listen my children and you shall hear
Of the midnight ride of Paul Revere,
On the eighteenth of April, in Seventy-five;
Hardly a man is now alive
Who remembers that famous day and year.

I mention that poem because Paul Revere had a mission, and so do these fine people who rid our airports of snow and ice. (I also mention it because it was my father's second most favorite poem—right after "Casey at the Bat"—and I grew up listening to him reciting it with great gusto.)

Lord knows those who remove ice and snow from airports were busy this winter. Usually, they meet to discuss the problems and solutions of frozen precip. This year who could blame them if they met just to celebrate the end of winter and perhaps to brag a bit about the fact that they survived again.

Let 'em brag. Lord knows they deserve it.

This issue of *Airport Business* includes information on safety, customer service and IASS, which covers the other two subjects. A big part—a huge part—of customer service is getting flights in and out of airports, on time, every time, even in lousy weather. That means the airport has to anticipate when and how much precip will come, and in what form. Preparation must happen based on all of the scientific evidence available, and understanding that it is still possible to get it wrong. It's not possible to get it perfect all the time, but they do it mighty well.

Once the precip hits, it's time for the execution of the plan, and all involved work long hours, in terrible weather at a frantic pace, under high pressure with heavy equipment,. As we all know, that's the formula for high risk among the workers, especially as they get tired to the point of exhaustion. How they maintain the safety record I don't know.

The public—all too often—understand little of this, and are quick to scream about missing their grandson playing one of the wise men in his very first Christmas pageant. That's got to be irritating to people who know they got most of those airplanes out much faster than anyone could reasonably expect.

They don't get the credit they deserve from the public, so let's make sure they get it from us, who do understand.

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By Ronnie L. Garrett

The I-Team

In the war of bird vs. airplane, infrared bird detection technology can help. The Interceptor from Pharovision arms air traffic controllers with timely information to neutralize the threat.

In September, the FAA reported three bird strikes in a four-hour period at New York's LaGuardia Airport. No one was injured, but the potential for tragedy exists anytime there's a bird vs. airplane incident.

Though bird strikes occur infrequently—the FAA reports just 30 per day out of 50,000 civilian aircraft movements—they can cause a plane to crash. The most notable incident of this type, known as the "Miracle on the Hudson," occurred when US Airways Flight 1549 made an unpowered emergency landing in the Hudson River after multiple bird strikes caused both jet engines to fail. Though all 155 people on-board survived due to the heroic actions of Captain Chesley B. "Sully" Sullenberger, the incident left a lasting impression on what can happen when bird strikes occur.

Six years after this crash, LaGuardia Airport and the FAA partnered to trial a new automated infrared bird detection system from Pharovision. The system is designed to help prevent collisions between aircraft and birds, in air. Dr. Nicholas Carter, finance director of the World Birdstrike Association, explains that while airports currently do many things to prevent aircraft from encountering birds on or next to the runway, little is done once the plane leaves the ground.

"While air traffic controllers cannot control bird movements, with timely information in



Researchers located the Interceptor on the roof of one of LaGuardia's central concourses.

hand, they can mitigate the possibility of a serious bird strike by altering the timing or flight path of an aircraft," he says. "If, for example, controllers (and thereby the pilots) had been aware of the flight path of the flock of Canada geese traversing the airspace outside of LaGuardia, Flight 1549's departure could have been delayed by 30 seconds or the climb-out altitude could have been altered in order to avoid crossing paths with the birds."

THE PORT'S PILOT PROGRAM

"The FAA conducts a great deal of research concerning wildlife hazards with aircraft," says Marcia Alexander-Adams, spokesperson for the FAA Office of Communications. "This includes investigating many new technologies for mitigating wildlife as well as systems that can better monitor and detect their movements."

After observing a brief demonstration of Pharovision's Interceptor outside the airport environment, FAA officials agreed the next logical step was to demonstrate the system in an airport setting. They then partnered with the Port Authority of New York and New Jersey to install the system at LaGuardia from October 2014 to February 2015.

According to Laura Francoeur, chief wildlife biologist for the Port Authority of New York and New Jersey, the goals of the demonstration were to test the system as a possible alternative to bird radar at a major metropolitan airport.

For the trial, researchers installed a single Interceptor system looking out over the Bronx and the East River/Eastchester Bay, the area where Flight 1549 encountered the flock of geese. Researchers located the system on the roof of one of LaGuardia's central concourses, near the end of the concourse closest to active runways.

According to Carter, this site was chosen for a number of reasons:

1) Ease of access,

2) The infrastructure already in place to support the system,

3) A nearby ramp control tower where personnel could operate the system while still seeing the whole airfield and surrounding environment (to verify detected targets, etc), and

4) A (mostly) unobstructed view of the bay and the majority of the airfield.

Within the first four hours after deployment, Carter states airport personnel discovered two significant and serious bird strike hazards that had gone unnoticed. The system detected a number of large cormorants flying in the late afternoon through the approach to Runway 04/22 to roost for the night on the pier supporting the approach lights for Runway 13/31. More than 100 of the sizable birds were spending the entire night, perched just meters below the oncoming aircraft landing on Runway 13. Even airport personnel dispatched to the beginning of the pier equipped with binoculars were unable to observe the roosting birds from their position roughly 1 kilometer away, despite the fact that the birds were clearly visible with Interceptor, located an additional 2 kilometers further from the roost site. Additionally, Carter reports the



The Interceptor had a mostly unobstructed view of the bay from its perch during its trial at LaGuardia Airport.

INTERCEPTOR'S OTHER USES

THOUGH designed to prevent bird vs. aircraft incidents, Pharovision's Interceptor also offers other solutions for today's busy airports, states Dr. Nicholas Carter, finance director of the World Birdstrike Association.

- **FOD detection.** The system can be utilized as an automated foreign object debris (FOD) detection system, capable of detecting any object on a runway or taxiway surface from more than 800 meters away. Though one unit is not sufficient to cover a typical runway, several units in combination can be employed to automatically scan the tarmac as well as any adjoining taxiways and other surfaces.
- **Security.** The Interceptor can be used as a security system, capable of scanning the entirety of a perimeter fence and notifying the user of any potential intruders. Because it operates in the infrared and does not rely on pressure/touch sensors, it can serve as a "virtual fence," functioning in areas where no fence exists. If, for example, flight operations at a particular airport cease at 11 pm, the system can be placed in a security scan mode to detect potential intruders along the airfield perimeter fence line then returned to bird detection the following day when flight operations resume.
- **Enhanced Airfield View.** The system enables air traffic controllers to see everything on the airfield, basically turning the dark of night into day. The enhanced visuals provided by the system allows them to view situations such as wingtip clearances, vehicular traffic, aircraft on the ground and in departure/arrival corridors, and even personnel moving about on the ramp.

system detected a second substantial roost of gulls, located on the lighting pier of the departure end of Runway 04, roughly 1 kilometer from the runway overrun and actually several kilometers closer than the site of the bird strike by Flight 1549. Again, airport personnel deployed to the end of the runway were unable to see the birds at all, despite the fact that dozens of large gulls were perched directly below the flight path of all aircraft utilizing that runway.

Francoeur states the system is "another potential tool to improve the efficiency of a wildlife management program at the airport" but adds further study is warranted. "We were able to detect some bird activity over the George Washington Bridge, but detection varied greatly, depending on bird size, distance from the airport and other environmental factors," she says. "The system also detected some rat activity near the perimeter fence bordering Flushing Bay in the evening and we have responded to that with changes in our rodent management program."

Alexander-Adams adds a comprehensive analysis of the results by the FAA will take a year or more.

AUTOMATED DETECTION

The Israeli Ministry of Defense originally developed Pharovision's automated infrared system, known as Interceptor, for detecting rockets and small gliders being launched over the borders of Israel by terrorist organizations and other enemies. Developers later modified the system to automatically detect birds utilizing airspace around an airport, as well as birds and other wildlife (like deer, foxes, etc.) on the airfield itself. The system warns air traffic controllers of the threat, who can then modify flight paths or delay aircraft departures briefly to prevent the flight paths of aircraft and birds from intersecting.

The Interceptor, which runs $200,000 to $600,000 depending on the modular components an airport requests, consists of several components, though the sensor unit itself is small enough to fit on a tripod on the top of an airfield antenna. The sensor unit transmits data back to a computer array, which displays panoramic and high-resolution images, an aerial map overlay, and all detected targets on a number of monitors, along with relevant data on the targets such as azimuth, elevation, size and range.

The system uses an infrared and electro-optical scanning payload and advanced proprietary image-processing algorithms to automatically detect individual birds and flocks of birds, day or night. It is also capable of manual user control, allowing users to observe further, track targets and study specific targets on a real-time basis. The Interceptor system produces visual imagery, which enables users to positively identify detected targets and determine the altitude, behavior, individual numbers or group size, and contextual placement within the actual environment. In addition, the basic system is completely passive, causing no electromagnetic interference with other systems. It can be controlled from a remote station, far from the payload, using an Ethernet link, or link through fiber optic cable or radio frequency signal.



The Interceptor has several components but the sensor unit itself is small enough to fit on the top of an airfield antenna.

> "While air traffic controllers cannot control bird movements, with timely information in hand, they can mitigate the possibility of a serious bird strike by altering the timing or flight path of an aircraft."
>
> **NICK CARTER, FINANCE DIRECTOR, WORLD BIRDSTRIKE ASSOCIATION**

"Air traffic controllers are too preoccupied to be staring at a screen waiting to see birds enter their field of view," states Carter, who emphasizes a bird detection system must be automated.

The Interceptor system is capable of automatically warning air traffic controllers when predefined levels of birds or wildlife are in close proximity to an area that could impinge on aircraft flight corridors. "Other systems require user interaction to scan and detect targets," he says.

The system displays all detections as true visual images of the targets themselves. An operator can easily assess the types, numbers and locations (especially altitude) of detected targets without extensive training or understanding of a complex representative system. "Unlike radar output, Interceptor's images are simply enhanced visuals and are not electronic signal returns translated onto a flat, two-dimensional model of the airport environment," Carter says. "An observer can actually see the individual birds present in the context of the surrounding environment and can view target behavior."

When scanning in automated detection mode, the system follows a series of predefined scan regions, looking for variability in thermal or



The Interceptor warns air traffic controllers of potential threats, and they can then modify flight paths or delay departures briefly to prevent flight paths from intersecting.

optical images. The system can be used with either the infrared camera or the electro-optical video camera conducting the detections. Currently it is not capable of scanning and performing detections with the FLIR and CCD cameras simultaneously, though the detection cameras can be switched with the simple push of a button.

As the automated scan proceeds, the system highlights detected birds with a green (or user-defined color) box on the panoramic display. Each target is delineated with its own highlight box and as the scan proceeds, the system updates the visual highlights to show the latest three scans on the panoramic display, removing highlighted boxes where birds are no longer detected. This allows a viewer to see the movement of a bird within the environment, at the same time not creating an overload of warnings with historical detections. Audible warnings or advisories can be associated with target detections or, as the system is currently configured, associated with a critical mass of target detections defined by the user.

Users also can set a bird threat level, or "Bird Watch Condition," to correlate with variable levels of bird detections. Once a predefined threshold of birds is reached, a visual and/or auditory warning could be announced, associated with Bird Watch Condition "Moderate" and "Severe" (or "Yellow" and "Red"). Users could modify these levels as conditions warrant or throughout changes in yearly migratory patterns. They could also change them daily or hourly, with differing threat level advisories based on variable bird movements. The Interceptor records its output, which can be replayed at any time, to allow officials to review the incident later. Depending on the size of the hard drive incorporated, the system allows for continuous and uninterrupted recording for weeks or even months at a time. Users can extract video clips or still images in any number of ways. "There are immense benefits of employing recorded video clips in lieu of written reports to demonstrate the actual hazards present in the environment in order to request specific actions be taken to mitigate identified risks," says Carter.

> "The FAA conducts a great deal of research concerning wildlife hazards with aircraft. This includes investigating many new technologies for mitigating wildlife as well as systems that can better monitor and detect their movements."
>
> MARCIA ALEXANDER-ADAMS, SPOKESPERSON, FAA OFFICE OF COMMUNICATIONS

FUTURE FOCUSES

Ultimately, a significant challenge facing deployment of this type of system is its integration into the daily operations of air traffic controllers. Carter explains, "Currently, no concept of operations (CONOPS) exists for incorporating wildlife detection systems in air traffic operations." Alexander-Adams reports the FAA plans to develop an Advisory Circular to assist those airports interested in employing an automated infrared system to best determine the minimal requirements of such a system. She adds that the FAA will also, in the near future, evaluate the precise capabilities of the system in a more controlled environment with known targets of specific sizes and distances. "Something not possible in the real-world environment of the busy LaGuardia airport and surroundings," Carter states.

Pharovision is also working to enhance the capabilities of the Interceptor as well as improve the user interface and operator interaction, and refine the secondary usages such as foreign object debris (FOD) detection. "The system will be (in the next month or so) tested to verify conformance with the FOD detection requirements under the FAA's existing A/C on FOD systems," states Carter. "The Israeli Air Force is implementing 25 to 35 of the systems at all of its major airbases for usage as FOD detection systems, with the added benefit of conducting wildlife detection (though FOD detection will be the principle function)."

By Ronnie L. Garrett

Keeping It Clear At O'Hare

Winter operations in the Windy City require a combination of technology, training and teamwork

O'Hare has eight active runways, 52 miles of taxiways and 234 acres of ramp space that must be cleared every time it snows. And on average, Chicago gets 38 inches of snow annually. "But obviously that's only an average — last year we got 82 inches of snow," says Jonathan Leach, chief operating officer at Chicago O'Hare International Airport.

As of February, the area had received 15 inches of snow, so it's likely to end up closer to the average or a little bit below, by the close of snow season 2015. Regardless, when a winter storm clobbers the Midwest, delaying or canceling flights out of the nation's busiest airport, it can have a domino effect that leads to delays and cancellations across the nation. "The last thing we want is to be named as the primary contributor to any excessive delays or cancellations," Leach says.

To lessen a storm's impact, the airport continually monitors the runways through vehicle inspections, pilot reports and friction testing. The only time runways close



Chicago O'Hare International Airport owns 239 pieces of snow removal equipment to keep eight active runways and 52 miles of taxiways clear.

is if pilots call in a nil braking action.

"Safety has to be top of mind, so in those cases, we'll close the runway right away and do the necessary snow removal to get the runway back up to acceptable standards," he says. "It's never our intent to keep it closed for a long time. As you can imagine, both the tower and the airlines get anxious to get it back up. Our teams are very dedicated and work hard to make sure we don't keep that runway down for any longer than it needs to be.

"It's important to us that we provide reliability for our carriers so they know they can depend on us to keep the airfields clean and active during winter operations," he continues. "If we failed to do so, this could result in delays and cancellations costing people time, money and aggravation. We're very cognizant of how important it is to keep the airfield clean. We don't want to put a stress on the rest of the national airspace because O'Hare is falling behind. We're very adamant about keeping runways open and active during weather operations whether there is 1 inch or 20 inches of snow."

But how does an airport the size of Chicago O'Hare, which transports 15.3 million people annually from the Windy City, cope with winter weather conditions? *Airport Business* recently spoke with Leach to find out.

WHAT KIND OF STAFF DOES O'HARE NEED FOR WINTER OPERATIONS?

We employ a fairly robust staff to handle snow operations, starting with our motor truck drivers, who both drive the snow equipment and the lead vehicles to take around the teams. We have 384 total motor truck drivers. Of that number, 263 are seasonal, meaning we bring them on specifically for the snow season from about October through April. We have 45 airfield operations personnel. They do a number of things, they go up into the air traffic control tower, they stay in our operations tower, and they're down on the airfield inspecting the pavement. We have 100 facilities personnel, who go around and do a number of things, from spreading salt on sidewalks and shoveling snow to helping clean the equipment. We also have 37 mechanics who work on the equipment. And we have up to 133 contractors, who may be dispatched into the ramp area when we receive 2 or more inches of snow. We call them out to push and pile the snow on the ramp area and then melt it.



Jonathan Leach, COO, O'Hare

WHAT DO YOU NEED IN TERMS OF EQUIPMENT FOR WINTER OPS?

The airport owns 239 pieces of snow equipment. We're able to access up to another 150 pieces of equipment from our contractors. Normally those are different sized blades for the push and pile, high lifts to lift snow into the snow melters, and things like that. We also have 11 snow melters that can be moved around the airfield.

WHAT HAPPENS WHEN A SIGNIFICANT WEATHER EVENT IS PREDICTED?

We contract with various weather services, which we use to monitor the weather event as

ON CLOSING RUNWAYS …

We don't want to put a stress on the rest of the national airspace because O'Hare is falling behind. We're very adamant about keeping runways open and active during weather operations whether there is 1 inch or 20 inches of snow."

ON TECHNOLOGY THAT MAKES WINTER OPS A LITTLE EASIER …

Aero-Bond … gives us an overview of all aircraft and equipment on the airfield at any given minute. This tool allows us to see where aircraft are staging and parked, and also helps us with the location of our snow teams so we can see which teams are available should we need to take a runway.

ON TRAINING FOR THE SEASON AHEAD …

… our Vehicle Services Division … has done some really great videos on each individual piece of equipment … to be able to go through the checklist on how to maintain and keep an eye on that piece of equipment as you prepare for and operate during a snow event.

soon as it's predicted … usually several days out. Often the forecast changes, so we don't really start finalizing plans until the event is just hours away. We do have daily weather calls at 1 p.m. and 8 p.m. During these calls, George Lyman, the managing deputy of airfield operations, will lay out his plan for the event and solicit feedback from all of the divisions that will need to staff for the event—vehicle services, which is our motor truck drivers; fleet mechanics; facilities and landside operations; terminal operations; safety and security; and the public relations team. Once we get an idea on the amount of snow, we'll call an alert and dispatch various teams onto the airfield and landside to clear the runways, taxiways, roadways, sidewalks, etc.

WHAT IS THE PROCESS FOR STAGING EQUIPMENT AND PREPARING FOR AN EVENT?

We have strategic positions [for staging] on the airfield. Our airfield's divided into two areas, north of the terminal core and south of the terminal core. Eventually the teams go out and start clearing the taxiways and the runways. They'll go back to those staging areas when they need fuel, light maintenance or cleaning. Then we have predetermined locations for the snow melters. This requires us to coordinate with the airlines as we need to take gates from them, both to push and pile the snow into the gate area and position snow melters over a drain specifically installed in the ramp area.

HOW DO YOU PRIORITIZE WHAT NEEDS TO BE DONE FIRST DURING AN EVENT?

We don't have a predetermined order in which we'll take the runways. We have two different airfield configurations now, and those runways have different utilizations. As a result, we can't predict which runway needs to be cleaned first. We monitor the braking action reports from the pilots utilizing these runways and when we get poor braking reports or if we hear nil, we'll shut down and we'll ask to take the runway. We call our operations person in the air traffic control tower and ask the tower to close that runway. Air traffic then starts rearranging aircraft to allow us to take that runway. At that point, we will dispatch the team needed to clean the runway. We also have a team moving around the airfield to clear primary routes for taxiways during the event.

HOW DOES THE RATE OF SNOWFALL AND THE MOISTURE CONTENT OF THE SNOW AFFECT WHAT YOU'RE DOING?

The rate and content really dictates what level of alert we go into as well as determines which teams we dispatch on the airfield. For example, if there's a light, fluffy snow, then we'll focus more on broom and deicer teams. If the snow if heavier, we'll focus on deploying blowers, 3-in-1s to assist in the operation. We also monitor both air and pavement temperatures so we can predict the type of precipitation as well as the chances for precipitation. This information factors into the timing in dispatching the teams, and which



O'Hare International Airport employs 384 motor truck drivers, of which 263 are seasonal employees.



In 2014, the Windy City airport received 82 inches of snow, more than double the average annual snow fall.

teams and equipment will go out. We also watch the winds [direction and speed] to determine which way to push and blow the snow. That gives us an idea of where significant drifting may occur so that we can monitor those areas to keep them clear.

WHAT INSPECTION PROCESS IS IN PLACE TO MONITOR CONDITIONS?

We have a lot of, for lack of a better word, boots on the ground during snow operations to keep an eye on the airfield. This personnel can call in any issues they see both on taxiways and movement areas, but our main source of information for the runways is the braking action reports from the pilots themselves. Our operations personnel as well as our lead drivers will ensure the runways are cleared as much as possible then after the deicer is sprayed, we'll send a friction tester down to the runway to get a reading and if the friction levels are acceptable, we'll alert the air traffic control tower that the runway is available.

HOW DO YOU TAKE CARE OF THE HUMAN FACTOR?

We hire additional staff during the snow season to ensure we have several shifts available during snow events and we always have fresh bodies that can be called in. In some instances, overtime may be required, but we try not to put any bodies in the equipment and on the airfield until the event actually starts. This allows our staff to wait and rest at the airport maintenance complex. That's where all the motor truck drivers and some of the laborers and others wait until we dispatch those teams. Our fleet mechanics do a tremendous job of keeping up with the units that go down during the events and they also ramp up their shifts during the snow season to ensure we have 24-hour coverage. Some of our equipment's getting pretty old (it's over 30 years old), yet we still see good productivity out of it. That's a testament to how well our fleet mechanics keep equipment maintained.

HOW DO YOU KEEP EQUIPMENT OPERATIONAL DURING AN EVENT?

We have mechanic teams out of the airfield that make minor repairs to the equipment during the event. If there is a significant issue, then that piece of equipment goes back to our airport maintenance complex where we have fleet mechanics ready to address more significant equipment issues. They work around the clock to make sure they get that equipment back up quickly.

WHAT TYPES OF TRAINING AND PREPARATION DO YOU DO TO READY PERSONNEL FOR THE SEASON AHEAD?

Every year we try to enhance our rigorous training program for all of our drivers, so they remain accustomed to the airfield, which is difficult because we're in the midst of the O'Hare Modernization Program. This program means new runways and taxiways are coming online literally every year. It's important to keep up with changes on the airfield and, if we do buy new snow equipment, to learn that piece of snow equipment. In addition, we ensure that all of the equipment is in working order with any and all preventative maintenance procedures are complete. We hire additional staff to assist with the snow removal program and have them go through both driver training and airfield familiarity training. We also regularly coordinate with the airlines, FAA and other stakeholders through regular standing meetings to ensure we're all aligned on the processes we're implementing during snow events. At these meetings, we address and discuss any issues or concerns and provide positive feedback and constructive criticism for ideas that work or don't work. Cooperation, coordination, just communication in general, is important for everybody out there on the airfield.

In addition, our Vehicle Services Division took it upon itself to continue their training. They've done some really great videos on each individual piece of equipment to be able to go through the checklist on how to maintain and keep an eye on that piece of equipment as you prepare for and operate during a snow event. They have best practice videos, YouTube videos, PowerPoint presentations and manuals. They continue to watch those videos and have implemented a testing program in addition to the airfield driving program to make sure they're up to speed on the equipment.

WHAT TECHNOLOGIES AND STRATEGIES HELP MAKE YOUR JOB A LITTLE EASIER?

We rely on a mix of old and new technology. A more recent technology that we utilize is AeroBond, which gives us an overview of all aircraft and equipment on the airfield at any given minute. This tool allows us to see where aircraft are staging and parked, and also helps us with the location of our snow teams so we can see which teams are available should we need to take a runway. This tool also helps us keep an eye on the three-hour tarmac rule. The AeroBond tool has a nice program that shows how long the aircraft has been on the airfield since the doors closed. If we see that aircraft approaching the three-hour mark, we'll reach out to that airline operation personnel to confirm whether they need assistance from us before the rule is breached. We can send a stair truck or buses or something to deplane those passengers. We also have equipment that moves a little faster now. Our brooms can go up 40 mph, which allows us to clean the runways and the taxiways a little more efficiently.

By Kris Marsala

A Blizzard of Ideas

49th annual International Aviation Snow Symposium offers a wealth of ideas for winter ops



The Merriam-Webster dictionary defines a symposium as "a formal meeting at which experts discuss a particular subject."

Focused exclusively on airfield snow removal and winter operations, the 49th Annual International Aviation Snow Symposium (I.A.S.S.), presented by the Northeast Chapter of the American Association of Airport Executives (NEC/AAAE), will be April 18-22 in Buffalo, New York.

Every year the I.A.S.S. attracts hundreds of attendees from airports across the United States and Canada. Airport executives, managers, employees, vendors, engineers and maintenance contractors that are responsible for dealing with ice, snow and slush on the airfield throughout the winter months attend this very informative, well-organized, interactive event.



Exhibitors showcase cutting-edge products and services during the two-day event.

The networking opportunities alone are worth the price of admission, not to mention the impressive list of featured speakers from the airport industry, the informative, hands-on workshops, the available training, and a wide variety of exhibitors showcasing their cutting-edge products and services.

"The I.A.S.S. is the crowning jewel of the NEC/AAAE," says Ann B. Crook, A.A.E., president of the NEC/AAAE. "With our mission to provide training and professional development for airport personnel, this program uniquely fits our mission within one of the major challenges that impacts all Northeast airports: Severe winter weather."

LET YOUR VOICE BE HEARD

Hosted by the Buffalo Niagara International Airport and the Niagara Falls International Airport, the theme of this year's event is: "A Blizzard of Ideas." The Snow Symposium provides a forum for the exchange of ideas between industry leaders, airport superintendents, snow removal equipment operators, operations specialists and other individuals that perform snow and ice control measures on airports. Topics include snow removal equipment and techniques, the latest communications, safety, environmental and personnel trends in the industry, as well as the financial considerations of winter operations.

Cleanup after a heavy snowstorm and absorbing the associated operating delays can easily cost a major airport more than a quarter of a million dollars. Fortunately, these costs can be minimized by the sound strategies, effective equipment, efficient techniques and great ideas for coping with snow, slush and ice that attendees will find at the annual International Aviation Snow Symposium.

"The Snow Symposium provides five general sessions related specifically to this industry and also provides multiple breakout sessions where smaller groups can discuss and analyze the general session discussion and the



The Balchen/Post Award recognizes exemplary winter operations teams. Morristown Municipal Airport won last year in the Large General Aviation (over 50,000 operations per year) category.

potential impact to their own airport," says I.A.S.S. Co-chair Carlton Braley Jr. "This event has always been intended for the snow removal equipment operator and the airport operations specialist. Through the years the I.A.S.S. has also provided management level airport members with the knowledge and information that helps make their winter operations safer and more successful."

"For more than 48 years, the Snow Symposium has been at the forefront in providing our attendees with the latest and greatest equipment, materials, strategies and snow removal techniques in the industry," says Joseph E. Guarino, I.A.S.S. co-chair. "I feel this conference is second to none because we have as our audience the very groups who are out there day and night keeping our airports operating safely under the most adverse winter conditions."

CELEBRATING 30 YEARS IN BUFFALO!

Held once again at the Buffalo Niagara Convention Center, this is the 30th time the event has been held in Buffalo. "I am thrilled with the incredibly productive partnerships we've enjoyed over the years with the City of Buffalo, as well as the Buffalo Niagara Convention Center,' says Ms. Crook. "If you can, I highly recommend that you check out some of the interesting, entertaining and wonderful things there are to see and do in and around Buffalo."

Since the Snow Symposium began in 1967, winter operations training has always been an important component of the program. New to the event this year is the International Aviation Snow Symposium (I.A.S.S.) Snow Academy. The academy offers experience and insight in to equipment designs, weather forecasting, human resource factors, regulatory requirements, material resources, and proper communication skills.

"The Basic Airport Winter Operations Specialist curriculum was developed by the I.A.S.S. Academic Committee to provide airport operators guidance to implement a well-rounded approach to their winter operations training needs," says Braley. "Graduates of the BAWOS curriculum receive recognition through AAAE certification, while the airports they work for receive the positive benefits a well-trained ice and snow removal crew provides."

CELEBRATING I.A.S.S.' PAST, PRESENT AND FUTURE

In 2016 the I.A.S.S. will reach a major milestone. The airport industry's leading symposium focused on winter airfield operations will celebrate its golden anniversary.

"The NEC/AAAE is very proud that in 2016 we'll be celebrating the 50th anniversary of the International Aviation Snow Symposium," says Crook. "We will put a special emphasis on the equipment and technical developments that have changed the industry since 1966. We'll also focus on the next 50 years of airport winter operations around the world including changing weather patterns, changes in international operations and changing workforce dynamics."

One of the benefits of having 50 years of experience in any profession is the knowledge that you gain over time. "To improve on current issues and conditions we need to be aware of how we addressed them in our past and evaluate whether the historical reaction was successful or not," says Braley. "We will soon have 50 years of experience to share with the industry, to build upon, to learn from."

Shared experiences, ideas to build on and peers to learn from, that is what the annual International Aviation Snow Symposium is all about. With an impressive program, featuring excellent speakers, networking opportunities, new exhibitors and an expanded list of classes, this year promises to be one of the best Snow Symposium yet.

ABOUTTHEAUTHOR

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I.A.S.S. CONFERENCE DETAILS

THE 49TH

Annual NEC/AAAE International Aviation Snow Symposium will be April 18-22 in Buffalo, New York.

For detailed information visit www.snowsymposium.org.

Contact the I.A.S.S. Committee

- Ph: 716.630.6009
- Fax: 716.630.6116
- info@snowsymposium.org
- committee@snowsymposium.org



By Scott Hutchison

P is for Parking Revenue

How airports can boost non-aeronautical revenue and profit through innovative parking solutions

Airport managers who want to increase profitability while improving customer satisfaction are seeking innovative ways to streamline the many difficulties faced by travelers while offering sought-after services and amenities. The field's top leaders recognize that providing an exceptional passenger experience is the best competitive advantage—one that ultimately generates an increasing income for the airport.

Providing end-to-end services—from the parking garage, to checking in and boarding the plane quickly, to helping find the car upon return and making payments easy—all improve the travel experience while creating customer loyalty.

For many airports, working with the right professional parking management firm who can both streamline operations and provide all these services means increased net profitability, and perhaps most important, improved customer satisfaction.

A CHANGING MARKET

Once upon a time, airports themselves had little competition, with fewer major hubs and, essentially, a sole emphasis on aviation-related revenue. But economic downturns, unpredictable prices, lower airfares, increased unemployment, frugal leisure travelers and reduced corporate travel budgets have combined to mean fewer flights, shrinking operating budgets and reduced profits.

At the same time, as travelers have become more technologically adept, they are demanding better, faster and more personalized services. With choices at their fingertips, they seek the options and airports that best meet their needs.

Facing fierce competition and a huge dent in aeronautical revenue, airport operators are pressured to make up for lost income and regain their competitive edge. Wise airport managers know that enhancing the passenger experience means increased revenue from non-aeronautical income. And, as they strengthen cash flow and soften the ill-effects of the economy, airports are attracting and retaining new customers.

OUTSOURCING PARKING SERVICES

Implementing diversified services has become the backbone in the evolution of modern airports. In addition to ensuring prominent directional signage, well-equipped parking lots, safety and basic amenities, additional services that provide exceptional passenger experiences while generating income are bolstering the new face of success for airports across the globe.

Perhaps the most obvious among the non-aeronautical revenue generators are retail services, food and beverage options, convenient parking and easy passenger access. But among those, parking operations are expected to play an increasingly significant role in profit generation for airports. In fact, in many airports, parking is the greatest source of non-aeronautical revenue, often accounting for nearly half of this critical revenue.



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VIP services such as curbside shuttle delivery make the parking process more convenient. These services also may be outsourced.

Many airports have already instituted such passenger-friendly conveniences as off-site parking, shuttle services and valet services. But going even further to generate parking-related income means that airports must tap into heretofore unrecognized existing potential by providing exceptional parking experiences, resulting in maximized income. Partnering with full-service parking management providers is an efficient way to implement these creative solutions. Outsourcing parking services means tapping into experts who understand how airports can implement the most innovative, passenger-centered parking solutions available.

Outsourcing means, too, that airport managers can then focus more solely on their core skills and responsibilities to make sure the airports run smoothly.

ABM, a national firm that provides facility solutions such as facilities engineering, commercial cleaning, energy solutions, HVAC, electrical, landscaping, parking and security, has been helping Lambert-St. Louis International Airport transport its more than 1.5 million annual passengers via parking and shuttle services since 2011. By working with the airport staff on a thoughtful new parking rate structure, ABM helped Lambert-St. Louis create nearly $2 million in revenue over the course of the 10 months following its implementation in April 2013, up 7.28 percent from the previous year's revenue. ABM has also helped the airport with cost saving measures, including restriping the airport's Terminal 2 garage and automating two perimeter surface lots, which have yielded annual savings of $231,000 and $306,000, respectively.

GET CREATIVE

Technological innovations combined with the push to offer consumers additional benefits have produced many new and unique ways for airports to generate income from parking and transportation. Some of the ways airports have most optimized non-aeronautical profit include parking automation, right-sizing, mobile applications, customer loyalty programs, VIP programs, lighting retrofits and electric vehicle (EV) charging stations.

Here are details about some of the innovative ways airport managers are partnering with knowledgeable experts in parking management to generate increased income and profit:

- **Parking Automation.** Modern travelers value speed, efficiency and convenience above all. They expect the latest and greatest technology and innovations to help them get in and out of the airport as quickly as possible. The most competitive airports harness the latest technology to reduce congestion, optimize operations, improve customer service and maximize net profit. Automated toll booths, online reservations and parking guidance systems result in a highly efficient operation. And these additional capabilities help airport operators reduce payroll costs while supporting green initiatives with less paper. Such automation also provides better visibility and uniformity to transactions, while improving reporting accuracy and timeliness for consumers.
- **Right-sizing.** Each airport is unique. The best ways of becoming more efficient, cutting costs and maximizing net profits require analytical capabilities supported by a sophisticated business intelligence platform. With a well-thought-out analysis of airport operations in hand, including the analysis of existing customer segmentation, travel patterns and



www.aviationpros.com/10017751

peak demand periods, airport managers can optimize parking resources. Partnering with the right parking operator has saved several airports millions of dollars while simultaneously improving customer satisfaction.

- **Mobile Apps.** Ease, convenience and speed are tops on travelers' lists. Mobile apps for smartphones and tablets address these concerns and help make parking easier, faster and more convenient. Whether users are frequent fliers or first-time visitors, their mobile apps can put travel, parking and other vital information they need in the palms of their hands. The next wave of mobile apps will allow drivers to quickly and easily make parking reservations, locate the airport, pinpoint available spaces and even assist in parking their cars. The faster and easier consumers can park and get inside the airport, the more time they will have to spend on other non-aeronautical transactions.
- **Customer Loyalty Programs.** Incentive programs reward travelers for using parking facilities frequently. These programs are free to customers and are easy, inexpensive ways to generate increased customer loyalty, create a competitive differentiator and attract new customers. Airports often integrate parking into the airlines' existing mileage loyalty programs. But rewarding loyalty with parking-related amenities is well-received by savvy travelers. With programs initiated by parking management vendors, consumers are directly rewarded with free parking or other car care services based on their activities while loyalty is generated to the airport itself and its facilities.
- **VIP Programs.** By offering highly sought services and amenities, airports are able to charge a premium. Some of today's most popular VIP offerings are executive valet parking; car care services; online reservations and EV charging stations, as more highly placed business leaders choose vehicles that use fewer petroleum products.
- **Lighting Retrofits.** Lighting in parking facilities is a significant operational expense. Most airport lighting is outdated, inefficient and requires frequent maintenance. A comprehensive lighting retrofit can harness the latest high-efficiency lighting and advanced controls, significantly reducing energy use and allowing airport facilities to maintain lower maintenance costs.
- **EV Charging Stations.** Some vendors can help airports take advantage of energy incentives and offer low-cost financing solutions, making it possible to fund upgrades such as EV charging stations.

ABOUTTHEAUTHOR



Scott Hutchison
ABM Vice President, Airports

D. Scott Hutchison is vice president-airports for ABM Parking Services. For more than 26 of his 30 years in the industry, Hutchison has specialized in airports' parking and transportation management and operations. During his career as an airport parking and transportation executive, Hutchison has been responsible for airport parking and shuttle services in every airport market type and has overseen the parking and/or shuttle services for airports such as Los Angeles International Airport, San Francisco International Airport, Newark Liberty International Airport,Washington Dulles International Airport, John Wayne Airport, Salt Lake City International Airport, Phoenix Sky Harbor International Airport, Long Beach Airport, Boise Air Terminal, Oklahoma City's Will Rogers World Airport and Wichita's Mid-Continent Airport; and many more.

ADINDEX

Advertiser	Page #
AAAE	26
Advanced Application Design, Inc.	25
Airports Consultants Council	39
Bascon	27
Daimler Vans USA, LLC	13
Epic Aviation, LLC	43
Ford Commercial Truck	2-3
International Snow Symposium	7
Lektro	25
Oshkosh Corporation	44
Schweiss	40
VP Buildings	23

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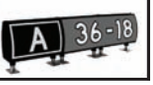
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FINALANALYSIS



RETAIL REVAMP REVEALED AT JFK TERMINAL 8

Eight new shops—including Victoria's Secret and seven renovated Hudson locations—are now open at John F. Kennedy International Airport's Terminal 8, announced airport retail terminal developer Westfield and travel retailer Hudson Group. The redeveloped shops are part of the 51,000-square-foot retail and dining collection at the American Airlines terminal. Hudson Group President and CEO Joe DiDomizio notes, "As 'The Traveler's Best Friend,' our goal was to redesign our core concept Hudson News to create a more open, friendly and welcoming environment for travelers. We have accomplished this mission through whimsical, color-coded signage to attract customers' attention to our four distinct selling areas: Media, Marketplace, Essentials and Destination. Greatly enhanced sales of healthy snacks, grab-and-go foods, authentic souvenirs and a wide range of electronics gear and accessories have resulted in rave reviews from customers and our landlords, along with improved revenue for the airport wherever the new concept has been opened."

$75 billion

the amount needed to accomplish airports wish-list of needed construction projects for the next five years.



TY OSBAUGH
Appointed to Principal, Gensler, Washington D.C. Office

LAWRENCE G. SERAFINI
Named Acting Airport Director, John Wayne Airport



"We need to have a system that will adapt to 1 billion passengers in 15 years [up from 750 million last year]. Right now we're not ready for it."

KEVIN BURKE, CEO OF ACI-NA

$450 MILLION

The amount the Administration's FY2016 budget would reduce Airport Improvement Program funding, described as the "life blood" of general aviation airports.

6 IN 10 TRAVELERS

Say they are willing pay $4 more to fly so long as the funds were dedicated to improving efficiency and competition.

—U.S. Travel Association Study

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