



Salt Lake City
Department of Airports

**October 2016
Media Clippings**

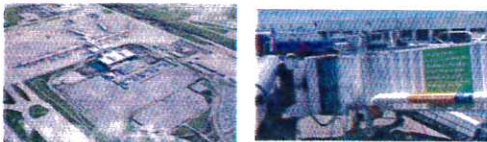
Advisory Board Meeting

SLCDA Airport Advisory Board October 2016		
Date	Media Outlet	Subject
8/31/2016	Engineering News-record	Airports focus on carbon-conscious plans
9/1/2016	Airoprt Review News	Best-ranked airports (Parking, Terminal Ac
10/11/2016	Salt Lake Tribune	Delta cuts SLC-DC Flight
10/12/2016	StreetInsider.Com	Sterling Construction contract
10/12/2016	Anna.aero	Tampa-SLC route
10/12/2016	ACI-NA.ORG	Industry's leading women
10/13/2016	Finance.Yahoo.Com	Southwest adds service to SLC
10/13/2016	AviationPros.com	SLCDA deicing program

Airports Focus on Carbon-Conscious Capital Plans



Blueprint for the Future Reconfigured and modernized airport facilities in Salt Lake City require driving columns. *Graphic courtesy of HD construction*



August 31, 2016

Aileen Cho

The term “enabling” may have negative connotations to laypeople, but for airport builders, it’s all about progress. Almost every busy airport in the U.S. faces the common challenge of trying to expand and modernize existing infrastructure within a tight footprint full of existing roadways, facilities and traffic. “Enabling” is how contractors describe the process of shifting existing “chess pieces” to make room for new construction.

At Salt Lake City International Airport, that includes the extensive reconfiguring of the roadway and parking systems, utility relocations, a “quick turnaround facility” to allow up to 2,000 workers site access, and ground stabilization work, including some 15,000 stone-filled columns as deep as 40 ft in an ancient lake bed.



Nelson

“We’re preparing for the big show,” says Leon Nelson, construction director with HD Construction, a joint venture of Holder and Big-D Construction, the construction manager-at-risk team for the originally \$1.8-billion, 10-year Terminal Redevelopment Program (TRP). In May, the airline tenants and the city agreed to add a 30-gate north concourse to the TRP, increasing the total to \$2.6 billion.

As with so many U.S. airport programs, the TRP plan experienced a delay due to the 2008 economic crisis, airline mergers and a decrease in regional jets. With that in mind, design for the new, HOK-led terminal “is built to be flexible,” says Michael Williams, program director with the Salt Lake City Dept. of Airports.

When ENR visited the airport a year ago as part of its “Low & Slow Across America’s Infrastructure” tour, soil stabilization work had just begun. “We have weak soils requiring surcharge—sands, silts, clays,” says Williams. Other enabling work on the 135 acres includes a new parking lot at the airport’s south end, a mile’s worth of new road, 12 miles of utility work and a 4-mile fence, to separate construction activity from airfield activity, says Brian Johnson, HD superintendent.

ENR revisited the site in August as part of the western leg of its “Project Runways: America’s Airport Infrastructure.”

Crews will install some 6,200 steel piles about 70 ft deep to support the future three-story terminal and concourse that will replace three current terminals and five concourses. The 1.7-million-sq-ft building will aim for LEED Gold certification. Salt Lake City airport, like just about every other, is striving to offset its carbon impact, despite big capital plans. But San Francisco’s and Seattle’s airports may very well be the leaders in that effort.

Sweatless in Seattle

By Claire Cole

Best-Ranked Airports For Parking, Terminal Access

Often an overlooked part of the air travel process, parking and access to the terminal can create frustration and headaches. Full lots and far-away parking can take away valuable time, forcing travelers to rush through ticketing and security and blow past any and all concession options.

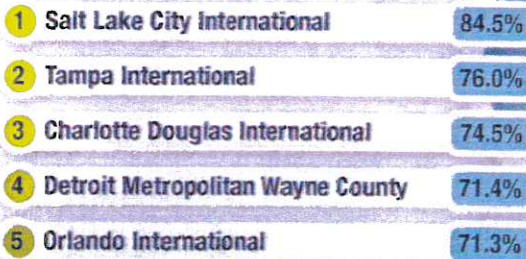
Phoenix Marketing International compiled 540,638 traveler responses to a survey conducted between June 29, 2015 and June 12, 2016. Travelers ranked satisfaction on a scale of one to seven – one being very dissatisfied and seven being very satisfied. The airports were ranked on the percentage of passengers that rated an

airport six or seven on overall satisfaction. The airport sizes are based on passenger volume and the Federal Aviation Administration classifications. ■

We'd like to hear your opinion about this article. Please direct all correspondence to Claire Cole at claire@airporttraveltrends.com.

Highest-Ranked Airports for Ease of Accessing Parking

Large-Hub:



Medium-Hub:

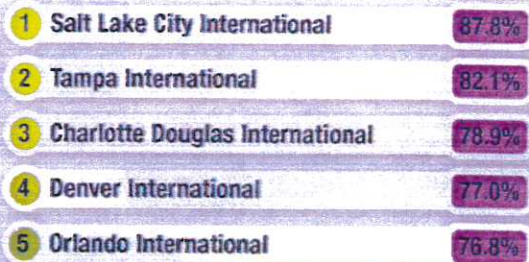


Small-Hub:

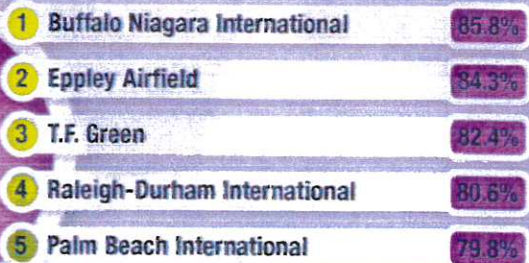


Highest Ranked Airports for Getting to the Terminal

Large-Hub:



Medium-Hub:



Small-Hub:



The Salt Lake Tribune

(<http://www.sltrib.com>)

Delta cuts Salt Lake City-D.C. flight

By Lee Davidson | The Salt Lake Tribune

Published: October 11, 2016 11:30AM

Updated: October 11, 2016 06:04PM

Delta Air Lines is cutting one of its two daily nonstop flights between Salt Lake City International Airport and Reagan National (DCA) in Washington, D.C., so the carrier can move the slot instead to Los Angeles International Airport.

As a consolation, Delta is adding a daily nonstop flight between Salt Lake City and Washington Dulles International Airport in the Virginia suburbs. But it is much farther from downtown Washington for customers such as Utah's congressional delegation.

The changes are scheduled to start April 24.

Reagan National allows only 20 round-trip flights a day on commercial carriers for trips of more than 1,250 nautical miles. To add the nonstop to Los Angeles, Delta decided to cut a daily nonstop to Salt Lake City.

"Delta's preference would be to maintain two round-trip flights to Salt Lake City from DCA, but is unable to do so without a change in federal statute," said Andrea Newman, Delta senior vice president for governmental affairs.

Adding more slots, she said, would spur jobs and economic growth through new business and tourism opportunities.

"As a Delta hub," Newman said, "Salt Lake City is a critical part of Delta's domestic and international network, connecting the Mountain West with service to all parts of the U.S. and beyond."

At the same time, Delta hailed the change as a sign of its growth and investment at its hub in Los Angeles, including a plan to spend \$1.9 billion to upgrade terminals there. The flight to DCA on a Boeing 757-200 will offer the only flat-bed seats in first class on the route frequented by customers in government, defense, entertainment and consulting services.

Delta says the replacement flight to Dulles will maintain the number of total seats it offers to the Washington, D.C., area from Salt Lake City.

Its new daily flight to Dulles will leave Salt Lake City at 5 p.m., arriving at 11:08 p.m. The reverse direction will leave Dulles at 7:30 a.m., reaching Salt Lake City at 10:10 a.m.



Travelers talk on their cellphones as they stand in line at the Delta ticketing counter at Washington's Airport, Monday, Aug. 8, 2016. (AP Photo/Carolyn Kaster)



Sterling Construction (STRL) Nabs \$65M Contract for Multiple Airport Projects

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October 11, 2016 8:54 AM EDT

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Overall Analyst Rating:
BUY (↑ Up)

Revenue Growth %: +6.8%

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Sterling Construction Company, Inc. (Nasdaq: STRL) announced that its subsidiaries, Ralph L. Wadsworth Construction Company, LLC ("RLW") and J. Banicki Construction, Inc. ("Banicki") have been awarded \$65 million in projects in Utah and Arizona.

The first project, located at Salt Lake City International Airport, is valued at nearly \$34 million and consists of all concrete work associated with the Terminal, South Concourse West, Gateway Buildings and associated tunnels. Construction will begin in December of 2016 and is expected to be completed within 2

years.

The second project award, also at Salt Lake City International Airport, is valued at approximately \$17 million. The project scope is part of the deep foundation package and includes more than 225,000 linear feet of concrete-filled steel pipe piles ranging in depth from 60 to 120 feet. Construction is scheduled to start in December of 2016 and is expected to be completed by the summer of 2017.

The remaining airport projects are located mainly at Phoenix Sky Harbor International Airport in Arizona and have a combined value of more than \$14 million. The scope of work on these projects consists of the removal and replacement of the north side of Terminal 4, which is one of the busiest taxiways at Sky Harbor Airport. The project will overlap the current American Airlines re-gating project and is expected to take 13 months to complete.

Paul J. Varello, Sterling's Chief Executive Officer, commented, "We are very pleased to have been selected for these important airport projects in Utah and Arizona. These new awards exemplify our strategic focus and help us increase our backlog and track record in the aviation infrastructure market. We plan to aggressively pursue similar projects in the coming years as air travel continues to grow across the country."

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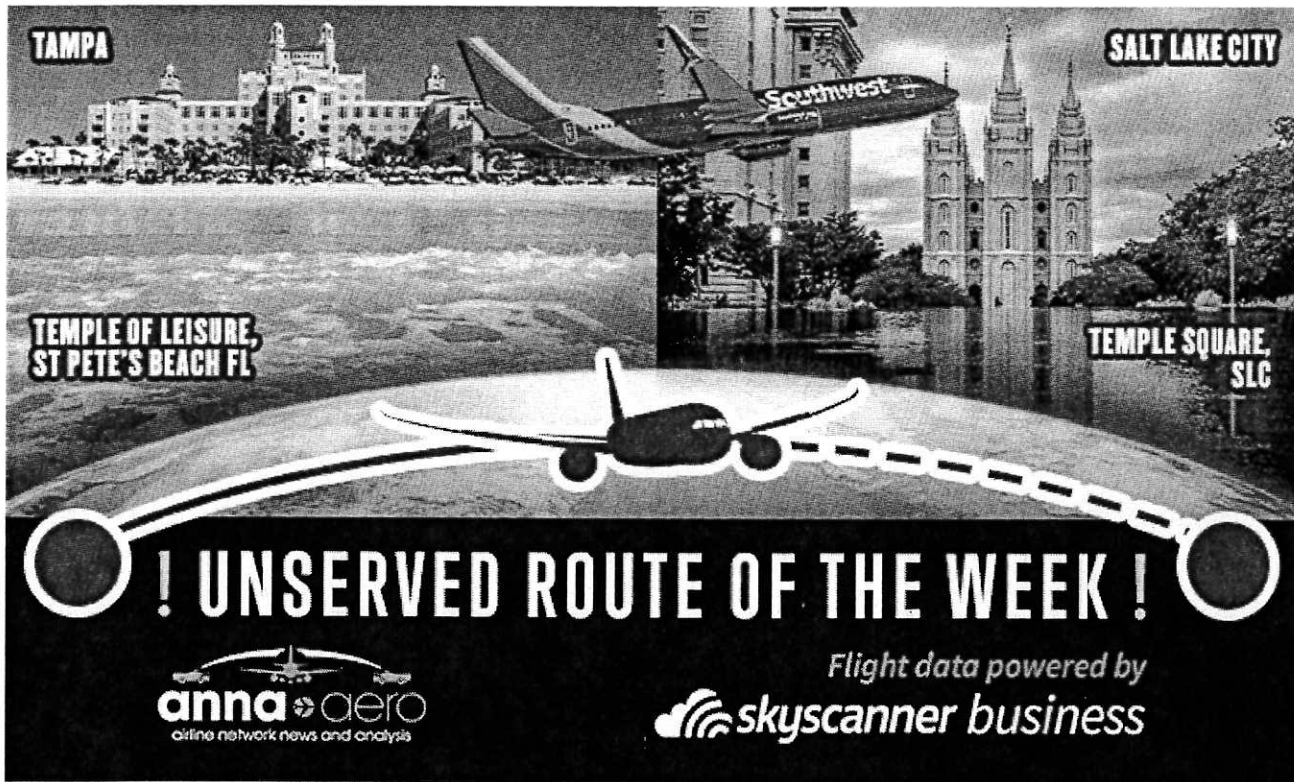
(/) (http://www.anna.aero/2016/10/12/tampa-salt-lake-city-is-skyscanner-anna-aero-unserved-route-of-the-week/#respond) Search

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Tampa-Salt Lake City is "Skyscanner Unservd Route of the Week", 25,000 annual searches, a "gilt-edged" opportunity for Southwest

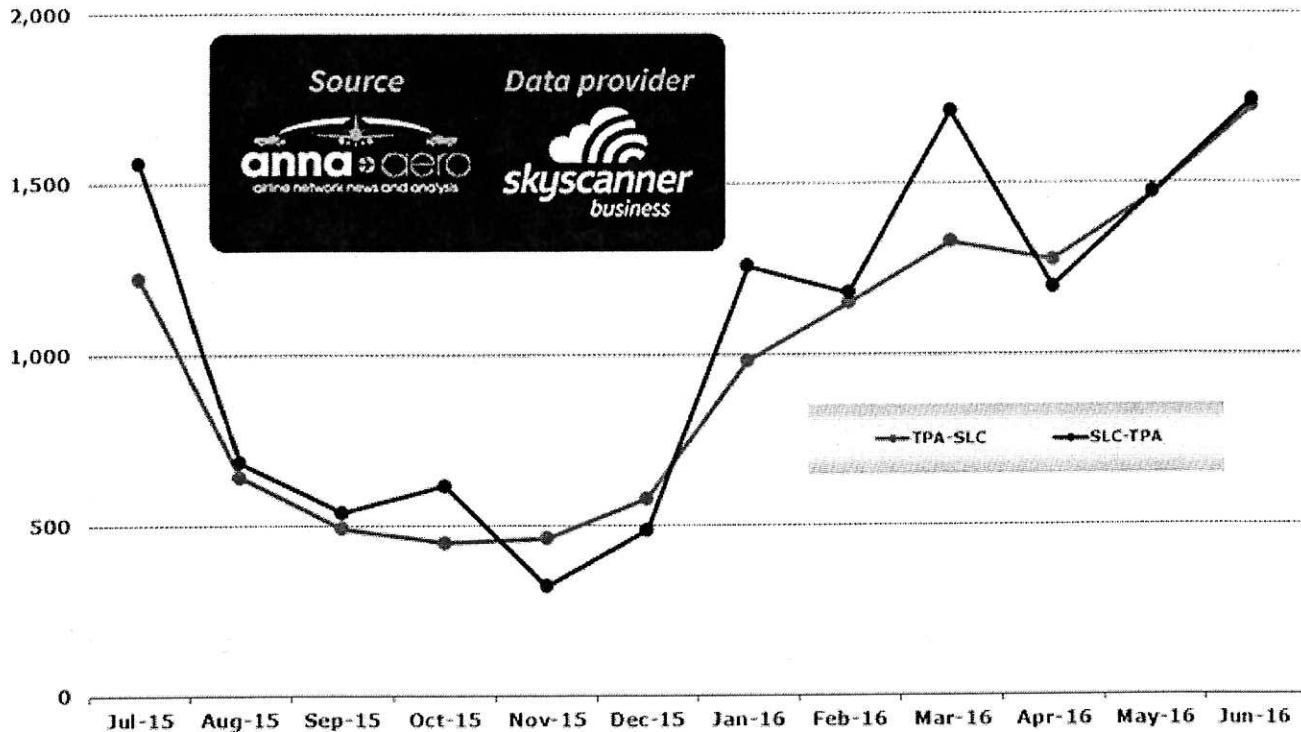


Southwest Airlines is the leading player at Tampa where it already has 32 destinations. In the last year 25,000 frustrated travellers searched Skyscanner for a Tampa-Salt Lake City flight - add that total to all those who go on Southwest's own website, only to find out that it doesn't serve the route, and you probably get a very big number indeed!

With 25,000 searches in the last 12 months, a potential new route from Tampa to Salt Lake City has been identified as this week's "Skyscanner for Business (<http://ww2.business.skyscanner.net/products/travel-insight/>)-anna.aero Unservd Route of Week" - a powerful analysis based on aspirational data captured from the Skyscanner.net flight comparison site used by +50 million unique visitors per month. "A Salt Lake-Tampa route offers a substantial fare

premium over similar service to Orlando," says Kenneth Strickland, Director of Air Service Development, Tampa Airport. The robustness of the potential service is backed-up at the other end of the domestic city pair too: "Tampa is the second biggest underserved market from Salt Lake," confirms Nancy Volmer, Director of PR and Marketing at the Utah airport.

Unserved Route of the Week: Tampa-Salt Lake City Skyscanner monthly searches



Source: Skyscanner for Business.

anna.aero advocates Delta or Southwest onto this sector

With the traffic on this route indicating a near-even 52/48 split marginally in favour of Salt Lake, the potential carriers at the Utah end of the route were therefore considered first. As expected, the airport's based hub carrier, Delta Air Lines, is currently the largest airline (70% share) in terms of weekly capacity, according to OAG schedules data for the week commencing 11 October. Delta, which is the country's second largest carrier (in terms of weekly seats), behind American Airlines, currently operates to 87 destinations from Salt Lake, but only one in Florida – **Orlando** (<http://www.therouteshop.com/profiles/orlando-airport/>). So further expansion in the Sunshine State would seem possible for the SkyTeam carrier, especially as it already flies to 16 Florida destinations from its Atlanta hub, including Tampa (presumably it is currently happy to filter SLC-Tampa traffic via Atlanta – perhaps when Delta sees this Skyscanner data, it will change its mind!!!) "Investigating the Salt Lake route is a particularly timely opportunity given Delta CEO Ed Bastian's recent comments indicating a desire for additional build-out of the carrier's hub network from there," suggests Strickland.

Salt Lake's second largest carrier based on weekly seats, Southwest Airlines, currently has an 11% share of capacity at the airport. However, SLC is more of a Southwest spoke than a hub, serving eight airports on the LCC's network – Chicago Midway, Phoenix, Denver, **Baltimore/Washington** (<http://www.therouteshop.com/profiles/baltimore-washington-airport/>), Las Vegas, Oakland, Los Angeles and Dallas Love Field. "Our PDEWs on the route for the year-ending Q1 2016 indicate a figure of over 90," adds Strickland.

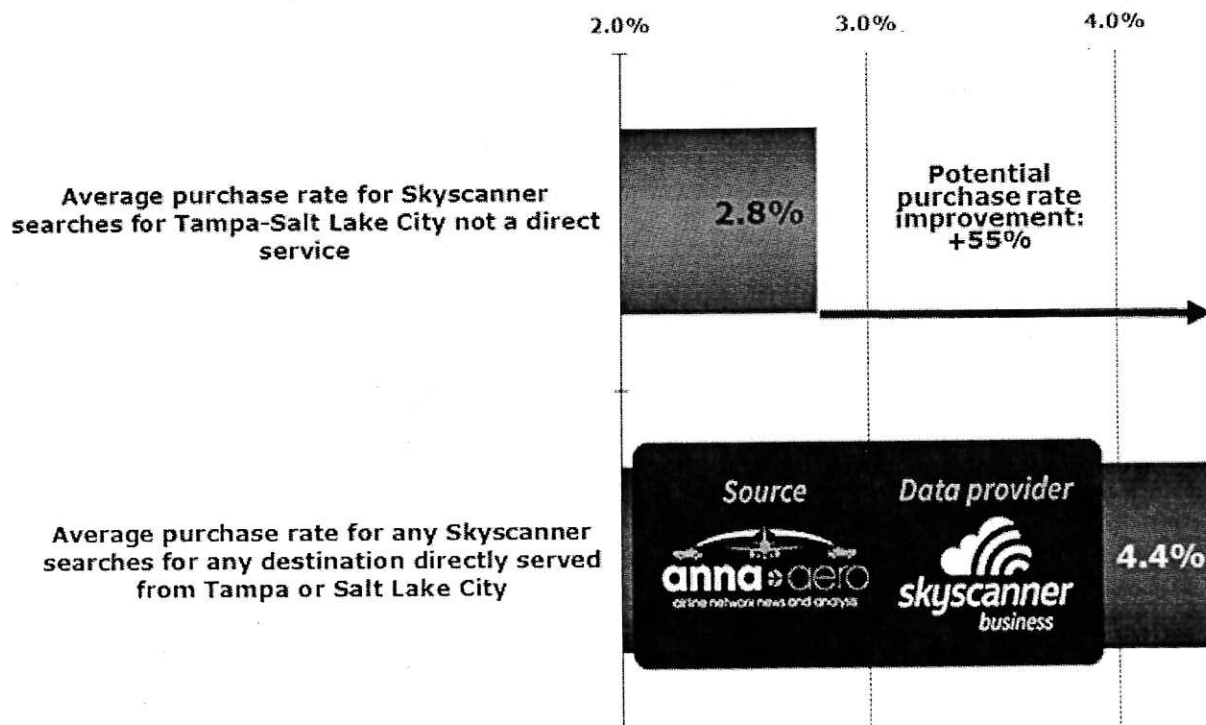
Contemplating the Florida end of the route, Southwest (34% share) is presently the leading player at Tampa, also the carrier's 18th biggest base operation in terms of weekly seats. The airline also has existing services to 32 destinations across the US from Tampa, but with none in Utah. So given the LCC's strong market presence at both ends of the route, this would appear to be a gilt-edged opportunity for Southwest. Checking the airline's website, it presently encourages passengers to transfer in places like Denver, Chicago Midway and Las Vegas to get between the two cities. "Tampa, as well as Florida's Gulf Coast, is a good tourism market for Salt Lake," comments Volmer. "Additionally, there are a lot of ski clubs in Florida who could access Utah's resorts more conveniently if a non-stop flight from Tampa to Salt Lake was available."

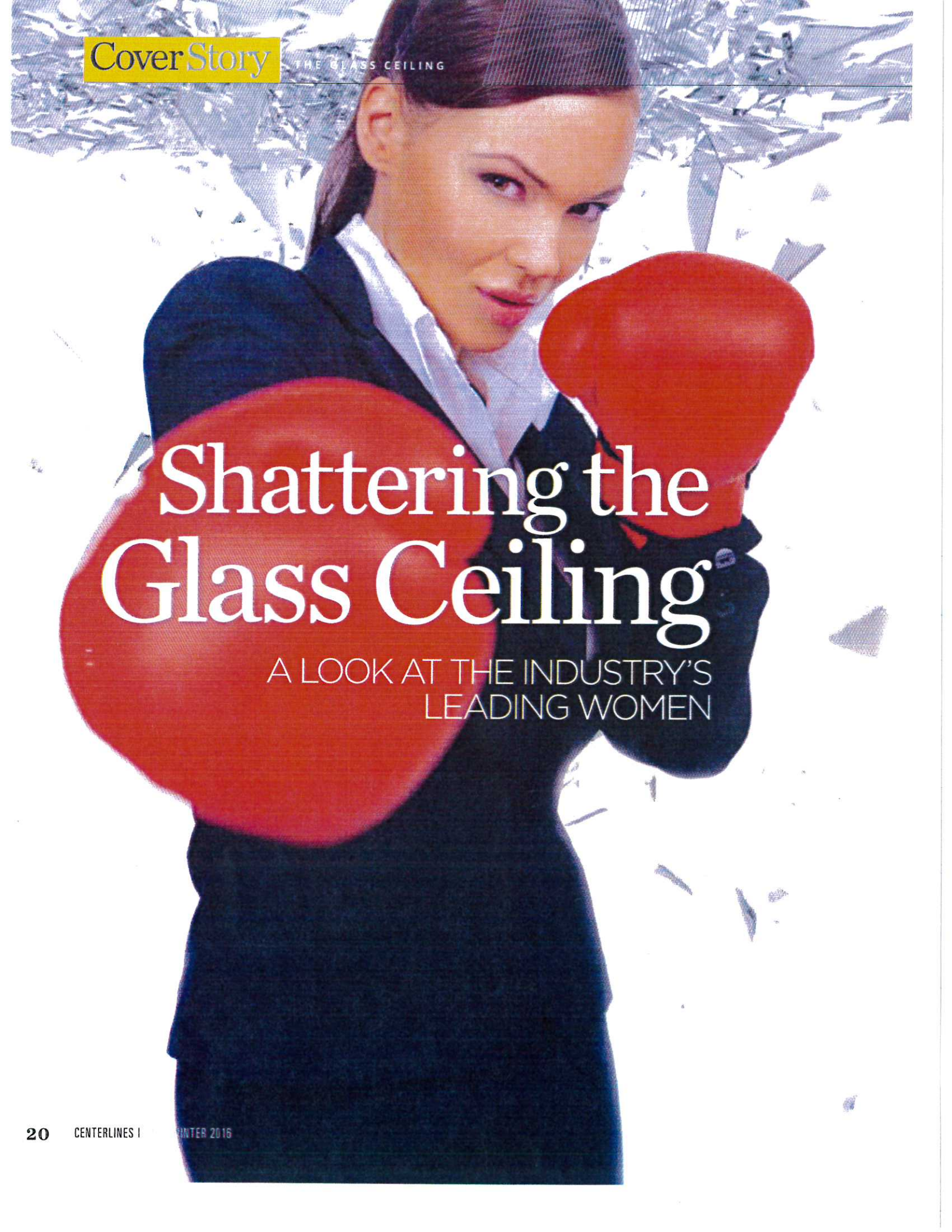
Atlanta, Denver dominate transfer market

When looking at the previous year of search data, the busiest month for potential traffic flows (for both directions on the route combined) is June 2016, with over 3,400, over 2,500 higher than the lowest monthly figure, which was recorded in November 2015 (800). The seasonality profile of this search data is more extreme than the last Unserved Route of the Week (**Cork to Rome** (<http://www.anna.aero/2016/10/05/cork-rome-is-skyscanner-unserved-route-of-the-week/>)), with the low-month traffic representing 23% of the highest month. According to OAG Traffic Analyser, because there is no direct service, the top three connecting options chosen by those passengers who did book travel between Tampa and Salt Lake in the past year indicates that the majority of connecting passengers use Atlanta (20%), Denver (19%), and Houston Intercontinental (11%). Interestingly, 30 different airports have been used by potential passengers as transfer points to get between the two cities.

An O&D that is not served by a non-stop flight will typically display a low purchase rate and low traffic. In this instance Skyscanner's Travel Insight indicates a monthly average of 2.8% for the Tampa to Salt Lake route (see graph below). Therefore, if there was a Tampa to Salt Lake route, and if bookings performed in line with the "Skyscanner market average" for direct services at both airports (4.4%), the airline operating this route could immediately expect an improved purchase rate of 55%, without any increased marketing spend. However, with nearly 25,000 annual searches, the potential city pair should already be very sustainable.


Unserved route of the week: Tampa-Salt Lake City Skyscanner conversion rates Jul 2015-Jun 2016





Shattering the Glass Ceiling

A LOOK AT THE INDUSTRY'S LEADING WOMEN



WHILE WOMEN IN today's competitive business landscape are "leaning in," women in today's airport industry are flying higher, thanks in part to an inspiring generation of women who are leading their airports - and the greater airport industry - into the future. But making it in a man's world hasn't always been easy.

Just 44 years ago, Katharine Graham shattered the glass ceiling in 1972 when she became the first CEO of a Fortune 500 company. Today, just 22 women hold the top executive position in the United States' largest companies. According to Fortune, these 22 women command businesses that contribute to two-thirds of the country's GDP.

With an economic output of \$1.1 trillion, North American airports are powerful economic engines like Fortune 500 companies. Though historically led by men, North American airports boast some of the most influential and powerful women ever to lead an industry. These 33 women are in the top executive position at 69 of ACI-NA's airport members. They represent just 10 percent of ACI-NA member airport directors.

Thirty-two is a strong number considering success in the airport industry has long been accredited to possessing a deep technical knowledge - a skillset that has historically been attributed to men. However, these 33 women are utilizing their varied expertise - finance, economics, engineering, business, public relations, and travel and tourism - to show the world that they possess the knowledge and determination necessary to run an

increasing number of North America's thriving airports.

Running a modern and competitive airport does not come without its challenges for any airport director - male or female. Due to a constantly evolving industry, airport executives face a multitude of challenges threatening daily operational functions and the overall passenger experience. From mitigating security concerns to managing major capital projects, these 33 women are turning challenges into opportunities to advance a modern airport industry. With each success, this sorority of airport directors is inspiring a new generation of airport leaders in the industry and their local communities.

Despite stereotypes and challenges, the women in this feature describe their executive roles to ACI-NA in purely optimistic terms. Dynamic. Exhilarating. Fulfilling. These words prove that these 33 women are not shying away from the challenges the airport industry presents. In fact, their success in the industry is paving the way for future airport executives. Similar to Katherine Graham, these women are shattering the glass ceiling and making the sky the limit.

These 33 women are utilizing their varied expertise - finance, economics, engineering, business, public relations, and travel and tourism - to show the world that they possess the knowledge and determination necessary to run an increasing number of North America's thriving airports. <<



24. Full Name:
Maureen Riley

Airport:
Salt Lake City International

Job Title:
Executive Director

Describe your job in one word.
Demanding.

How did you start your career in the aviation industry?

While working as a certified public accountant in the mid-80s, I was assigned to Orlando International Airport to perform financial consulting services.

What advice would you give younger airport executives?

Remember that, sometimes, it's more important what you don't say.


What is the single biggest challenge your airport faces?

Managing a \$2.6 billion redevelopment program while operating a major large hub.

I'm a member of ACI-NA because:


Of the value derived from information-sharing, networking, data resources and meaningful relationships with my industry colleagues.

Top Women in Airports:
MAUREEN RILEY
— Salt Lake City International Airport Executive Director —



Airport Revenue News'
2016 DIRECTOR OF THE YEAR
(Large Airports Division)

Airport Council International
NORTH AMERICA
2015-2016
CHAIRWOMAN



Congratulations, Maureen!
LEADER, COLLABORATOR, INNOVATOR
(and Springsteen fan)



25. Full Name:
Elaine Roberts

Airport:
Columbus Regional Airport Authority

Job Title:
President & CEO

Describe your job in one word.
Stimulating.

How did you start your career in the aviation industry?

I was a staff attorney for the Indiana State Transportation Planning Office when a position opened at the Indianapolis Airport Authority for

S&P 500

2,139.18

2.45 (0.11 %)



Dow 30

18,144.20

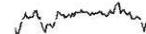
15.54 (0.09 %)



Nasdaq

5,239.02

-7.77 (-0.15 %)



Crude (

49.95

-0.23 (-0.

DALLAS, Oct. 12, 2016 /PRNewswire/
 -- **Southwest Airlines Co.** (LUV) today announced new service beginning March 9, 2017, that will provide low-fare service between Salt Lake City and both Burbank and Sacramento. Customers may now book travel on these new nonstop routes at **Southwest.com**. To celebrate the new routes, Southwest is offering fares as low as \$59 one-way*.

Purchase from October 12 through October 20, 2016, 11:59 p.m. for the respective time zone of the originating city. Domestic travel valid March 9 through April 24, 2017.

Travel is not valid on Fridays and Sundays. Please see below for complete terms & conditions.

"As the carrier that flies more travelers to, from, and within California than anyone else**, Southwest continues its work to thoughtfully connect Californians to destinations that matter for work and leisure travel," said Leah Koontz,

Southwest Airlines Vice President & Controller. "Our Employees' hearts and Hospitality and our Customer-friendly policies continue to differentiate us from other carriers."

Also today, Southwest published a third daily trip between Houston Hobby and Mexico City effective Jan. 5, 2017. This added frequency will bring a total 11 departures a day on Southwest from Houston Hobby Airport to international destinations across Mexico, Central America, and the Caribbean.

** Based on the U.S. Department of Transportation's most recent data

*FARE TERMS & CONDITIONS

Purchase from October 12 through October 20, 2016, 11:59 p.m. for the respective time zone of the originating city. Domestic travel valid March 9 through April 24, 2017.

Domestic travel is not valid on Fridays and Sundays. Fares are valid on domestic, nonstop service only. Displayed prices include all U.S. and international government taxes and fees. Points bookings do not include taxes, fees, and other government/airport charges of at least \$5.60 per one way flight. Fares are not available to/from San Juan, Puerto Rico. Seats and days are limited. Fares may vary by destination, flight, and day of week and won't be available on some flights that operate during very busy travel times and holiday periods. Travel is available for one-way Wanna Get Away®

fares. Fares may be combined with other Southwest Airlines® combinable fares. If combining with other fares, the most restrictive fare's rules apply. Sale fares may be available on other days of week, but not guaranteed. Fares are nonrefundable but may be applied toward future travel on Southwest Airlines®, so long as you cancel your reservations at least ten minutes prior to the scheduled departure of your flight. Failure to cancel prior to departure will result in forfeiture of remaining funds on the reservation. Any change in itinerary may result in an increase in fare. Standby travel requires an upgrade to the Anytime fare. Fares are subject to change until ticketed. Offer applies to published, scheduled service only.

ABOUT SOUTHWEST AIRLINES CO.

In its 46th year of service, Dallas-based **Southwest Airlines** (LUV) continues to differentiate itself from other air carriers with exemplary Customer Service delivered by more than 52,000 Employees to more than 100 million Customers annually. Southwest operates more than 3,900 departures a day during peak travel season across a network of 98 destinations in the United States and seven additional countries with service to Cuba expected to begin later this year, subject to governmental approvals.

Based on the U.S. Department of Transportation's most recent data, Southwest Airlines is the nation's largest

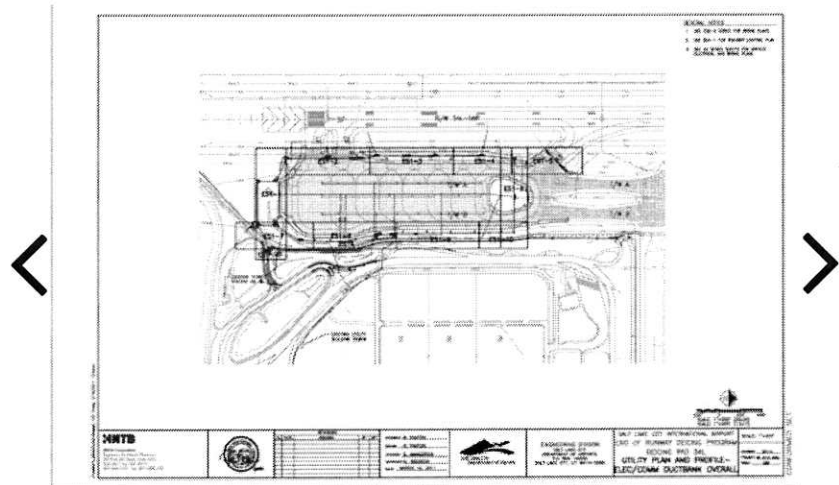


Photo credit: HNTB

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Last December, during a storm that dumped 9 inches of snow on the airfield, Salt Lake City International Airport (SLC) launched a comprehensive end-of-runway deicing program, an initiative 10 years in the making. Under the program, all nine of the airlines serving SLC transitioned from airline-controlled deicing pads in the central terminal area to large common-use deicing pads near the ends of three major runways.

The Salt Lake City Department of Airports (SLCDA) operates SLC and had multiple reasons for decentralizing deice operations:

- **Greater airfield safety.** Constructing deicing pads at the end of runways would decrease congestion at aircraft exit/entrance ramps and gates.
- **Improved out-to-off times.** Having the deicing pads as close to runways as possible would reduce the need for secondary deicings and get planes on the runways faster.
- **Room to expand.** SLC is planning a new terminal complex and needed the space occupied by the current deicing pads for the new concourse.
- **Increased sustainability.** New deicing pads would allow for more efficient collection of glycol runoff to meet current and anticipated environmental regulations.
- **Traffic growth and changes in fleets.** Pads would support growth in carrier and cargo operations and planes of various sizes, including 747-sized aircraft.

Program is ambitious and robust

This past winter, three of the pads opened: 34L, 34R and L. A fourth deicing pad, 16L, is scheduled to open on time and as planned this fall.

At full buildout, SLC's end-of-runway deicing program will feature six pads (three on the north end of each runway and three on the south ends), supporting taxiways, roadways and utility infrastructure. The new pads and taxiways include independently controllable centerline lighting for marshaling aircraft into each deice position and a sophisticated glycol/stormwater runoff collection system.

The program also includes up to four deice support buildings, each with a deice control center, glycol storage, mixing and dispensing equipment, deice vehicle parking, office space and break facilities for deicing crews.

SLC is among the first U.S. airports to develop and successfully implement a comprehensive deicing program. However, as expected, implementation of the ambitious program was not without its challenges.

Weather patterns change

In 2008, the SLCDCA hired HNTB Corp. as primary engineering consultant for all aspects of the end-of-runway deicing program. HNTB collaborated with airport engineering and operations, FAA air traffic control and Delta Air Lines to set design criteria for each pad's size, the number and size of aircraft it would support and its location on the airfield.

HNTB issued 13 technical memos summarizing evaluated concepts, discussions, decisions and recommendations for major project elements. As part of the evaluations, HNTB completed shadow and line-of-sight studies from the existing air traffic control tower to confirm satisfactory viewing of the new runway-end facilities and to confirm the aircraft being deiced at the end-of-runway facilities would not interfere with protected airspace and services.

Based on the data collected, HNTB produced computer simulations of various airfield operational scenarios and runway departure flows to optimize the location, size and layout of each deicing pad.

The SLCDCA began the 2015-16 deice season confidently - with a set of expectations based on nearly a decade's worth of research, simulations, data mining, design, construction and information from other airports, but some aspects of the plan, such as the weather, would remain unpredictable.

The new pads were modeled for both north-flow and south-flow runway operations. Since north flow is by far the predominate operational condition for winter operations at SLC, the first three pads were constructed on the south ends of the runways to support north flow operations. But during the first year of pad operations, most of the storms came

from the south instead of the north. The unusual shift in weather pattern presented problems, as the airfield did not yet have deice pads at the north end of any runway.

It was anticipated that the L pad, the first pad constructed, would see the heaviest use, but because SLC operated in an unusual south flow, the L pad was the least desirable that first winter.

The lesson is that it's important to periodically review assumptions to ensure they still are valid and to understand there may be some situations that simply cannot be predicted.

The basic premise of the single-provider program changes

While the pads and deice control facilities are designed to accommodate multiple deice providers, the modeling and simulation confirmed that a single-provider, common-use program would create the most efficient, safest deicing environment. Based on that, the SLCDCA asked all air carriers to participate in the program. For some, it was a hard sell.

"With anything new, you have to adjust and adapt," said Jon Beplay, Salt Lake City station manager for Southwest Airlines. "Having a third-party provider deice our planes meant we would lose some control over out-to-off times."

Delta, SLC's largest carrier, opted to continue its own in-house deicing program. The remaining air carriers, including Southwest Airlines, were required to contract with Integrated Deicing Services. The SLCDCA still believed both deice providers could share common-use pads. However, because of congested taxiways, the 34R pad was IDS' primary pad until approximately 8:30 a.m., at which time IDS would operate almost exclusively on the L pad. Delta's crews would then take exclusive use of 34R and most of 34L, in preparation for their morning departure bank.

While the goal of common-use pads with a single deice provider has not been fully realized, the program has been a success because of compromise. All stakeholders found ways to make the program work through a blend of common-use and airline-controlled facilities.

Mid-season audit reveals slightly longer out-to-off times

In addition to regular meetings, the SLCDA held a program audit halfway through the first deice season. The meeting gave stakeholders an opportunity to express their concerns, talk about their experiences and be heard.

Several airlines reported improved block and arrival-at-the-other-end times. The discouraging news was out-to-off times (the time from pushback to departure) were longer by an average of one minute compared with the last three deicing seasons. The overall average out-to-off time was 37.1 minutes, with Delta reporting an average 38.2 minutes and IDS clocking in at 35.3 minutes.

The root cause of the increase was the congested taxiway leading to Delta's deicing pad, which blocked other aircraft from accessing other deicing pads. Under the new system, planes queued up at the deice pad. Before, the airlines would hold planes at the gate until a deice pad was available.

"Push-to-off times weren't prohibitively longer, but they were longer than before the new deice pads," Beplay said. "As time went on, we saw improvement. This year, Delta Air Lines will hold planes short of the deice pad, so the taxiway is not blocked. Based on this new solution for managing congestion, we are optimistic efficiency will continue to increase going into the new season."

Last winter being the first year of the new deicing program, it wasn't known if the longer out-to-off times were typical for end-of-runway pads. Having no previous-year data from which to make comparisons, all stakeholders agreed to reframe that first winter as a benchmarking season and began collecting the appropriate data. This winter, the SLCDA will be able to compare year-to-year statistics.

First season confirms a broad definition of success

By January, just one month after official launch, the end-of-runway program was running very well and the SLCDA was able to place several marks in the win column:

- The airport's deice operations had been consolidated.
- The previous deicing pads were decommissioned, clearing the way for expansion.
- Secondary deicings were eliminated.
- Congestion was improved.
- Greater sustainability was achieved with a sophisticated glycol collection system.
- Actual time on the deicing pads was as predicted. Once aircraft were on the pads, the deicing process was smooth and efficient. Aircraft were moved expeditiously to their assigned departure runways after deice.
- What's more, both providers were committed to the program's success. Delta Air and IDS agreed to manage the deicing pads, freeing SLCDA operations managers for other tasks.

Going into the second season, the SLCDA and all stakeholders have the advantage of experience. But, the landscape of the deicing program will continue to evolve with the opening of the fourth deice pad. The new fourth pad will present an opportunity for improved deice operations and a challenge as everyone learns how to incorporate it into operations.

The SLCDA accomplished what it set out to do after many years of planning, negotiations, design, construction and coordination. It has set the stage for safe, efficient deice operations, future growth and environmental responsibility at Salt Lake City International Airport.

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