

GROUND SUPPORT

WORLDWIDE

Jazz

PLAYS A GSE GAMBIT

The carrier implements an ambitious strategy to renew its ground support fleet

Page 10

International:

Leipzig/Halle Emerges from the Shadow

The airport has advanced to become one of Europe's modern airports with a sophisticated infrastructure

page 13

The regional carrier's operations consist of some 800 flights per day to more than 80 destinations in North America.

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Contents



10

ON THE COVER:

Air Canada Jazz implements an ambitious strategy to renew its ground support fleet.



13



16

10 Cover Story

JAZZ PLAYS A GSE GAMBIT

Air Canada's melding of multiple carriers has led to a diverse ground handling model.

13 International

LEIPZIG/HALLE EMERGES FROM THE SHADOW

The airport is the second largest cargo airport in Germany after Frankfurt.

16 Feature

VERTICAL INTEGRATION

Trego/Dugan 'FBO of the Plains' finds success in airline ground handling, by Brad McAllister, *Airport Business Magazine*.

Beyond the Pages

Find the latest news, articles, blogs and product information online at www.groundsupportworldwide.com.

C O L U M N S

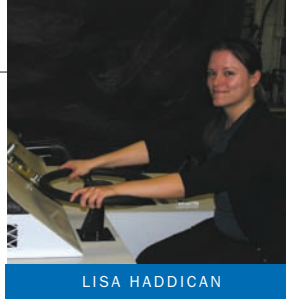
18 A look to the past, when service was simply expected as part of the airline flight.

20 A look at fatigue risk management in aviation.

D E P A R T M E N T S

- 4 Editor's Note
- 6 Publisher's Note
- 7 News in Brief
- 24 Product Profile
SAE Technical Committee G-12 Aircraft Ground Deicing Meeting
- 27 Product Warehouse
Deicing/Anti-icing
- 32 Classified Advertising

An Editor's Goodbye



LISA HADDICAN

As the headline indicates, I am stepping down from my position as editor of *Ground Support Worldwide* to pursue another professional opportunity. It is not easy to say goodbye to an industry that has been my focus for nearly four years — or to friends I have made along the way.

I remember first entering into the GSE world with little idea of what it was all about. The extent of my knowledge was what I saw on the ramp when I waited to board a flight. It seemed a bit of a daunting task — to learn the ins and outs of an unfamiliar industry. Perhaps the best advice I ever received was from George Prill, the individual who started it all with this magazine. He told me that my role was to “help the community communicate” and that I wasn’t meant to be an outside observer; I was a part of it.

So I set out to become part of the industry by visiting many operations across the continent. It never ceased to amaze me how helpful everyone was, taking the time to explain the business in depth and clarify any concepts I didn’t understand. I was also able to share in the enthusiasm for the industry.

And that’s how I’ve come to know the true importance of the term “community” and the publication’s role within it. A community is not simply a group of individuals that shares an interest. It’s much more than that — it’s the sharing of a passion. They want to talk to each other, not only as business associates, but also as friends. And that’s what the publication has strived to be: a platform to improve the industry through the sharing of ideas, and also a place to share stories and lend recognition.

That has been the vision of the publication through my eyes as editor. I hope you’ve enjoyed reading it. I also hope that you will welcome the next editor as you’ve welcomed me.

I hope to stay in touch with many people I’ve met over the years. At the very least, I know I will watch the operations on the ramp when I’m at an airport waiting to board my flight and smile, thinking back fondly on the community of which I was so lucky to be a part of.

Advertiser's Index

Advertiser	Page
A T Juniper	23
AERO Specialties	25
ASIG	14
Clariant	21
Columbus Jack	17
Cygnus Aviation Expo	35
David Clark Company	15
Dow Chemical Company	9
Garsite	27
Global Ground Support	28
Hobart Ground Power	30
Hydraulics Intl.....	26
J&J Group	8
LAS-USA.....	2
Lekro	23
Liquip International	6
Metro Crown	4
Myslik, Inc.	30
NCP Coatings	36
Par-Kan	29
PF Fishpole Hoists	29
Phoenix Metal Corporation.....	19
Premier Engineering & Manufacturing	12
Reelcraft	31
U.S. Airmotive GSE	26
Wasp.....	22

Connect to each manufacturer:
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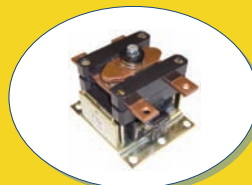
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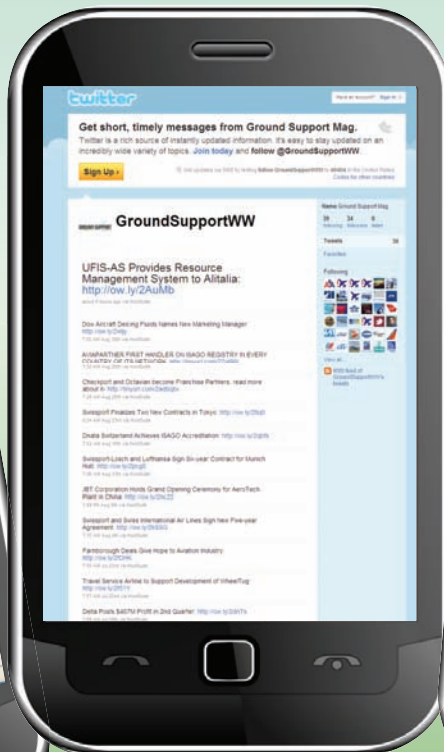
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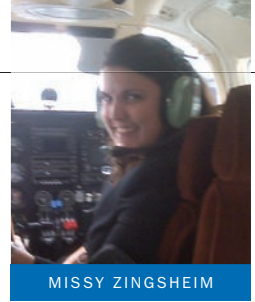
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MISSY ZINGSHEIM

Advertising Online

There are several ways to measure response from online ads.

Last month we really got into the basics of advertising. This month I would like to talk about online and interactive advertising.

Ads can be generic in nature or they can be endemic, meaning that

your browser has remembered what websites that you were visiting and has placed ads on the pages that you are on for products or services that you were recently viewing.

Online or interactive ads come in all types, and of course, all can be tweaked to make them more interactive with the audience. One may ask how online/interactive advertising response can be tracked?

Here are different ways to measure how many people see an advertisement online and the corresponding definitions, according to www.whatis.com:

Click: When a visitor interacts with an advertisement. This does not apparently mean simply interacting with a rich media ad, but actually clicking on it so that the visitor is headed toward the advertiser's destination.

Click through: What is counted by the sponsoring site as a result of an ad click. In practice, *click* and *click through* tend to be used interchangeably. A click through, however, seems to imply that the user actually received the page.

Hit: The sending of a single file whether an HTML file, an image, an audio file, or other file type. Since a single webpage request can bring with it a number of individual files, the number of hits from a site is a not a good indication of its actual use.

Impression: The count of a delivered basic advertising unit from an ad distribution point.

Unique visitor: Someone with a unique address who is entering a website for the first time that day (or some other specified period).

Online/interactive advertising can be a great way for you to gauge your advertising, because one can receive reports with online analytics from either the website that the advertisement is placed on, or through your own website traffic. Either way, you can get the response instantly.

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<http://events.aaae.org/sites/110705/>

September 7-8

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www.airportexpansions.com/Event.aspx?id=528502

October 11-14

inter airport Europe 2011

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Business Buzz

■ **AERO Specialties named Northwest Region Exporter of the Year:**

AERO Specialties Inc. announces it has received the U.S. Small Business Administration's 2011 Northwest Region Exporter of the Year award.

This recognition comes in addition to being designated by the U.S. Small Business Administration (SBA) as the 2011 Idaho Exporter of the Year. AERO Specialties' achievements were honored during the Boise World Trade Day celebration, held on May 4, 2011, at Boise State University.

■ **JBT Corporation reports 1Q 2011 results:**

JBT AeroTech's first quarter revenue of \$92.5 million increased 37 percent from the same period in 2010, driven by the strong backlog entering 2011. JBT AeroTech's operating profit was \$7.7 million, a 60 percent increase from the first quarter of 2010, principally due to higher sales volume. Operating margin was 8.3 percent, up 120 basis points from the prior-year quarter, resulting from leverage of fixed expenses. Order activity remains strong across most product lines, reflecting continued investment by the airline and airfreight industries. However, inbound orders totaled \$77.3 million, a decline of 33 percent from the prior-year quarter. The unfavorable comparison was principally due to the receipt of three large orders totaling \$41 million in the first quarter of 2010. Inbound orders decreased 7 percent sequentially from the fourth quarter of 2010. Backlog of \$168.2 million

increased 4 percent year-over-year but declined 8 percent sequentially.

■ **ASIG's DEN fuel facility operation receives sustainability award:**

ASIG announced that its Denver International Airport (DEN) jet fuel facility operation is the recipient of the 2011 Sustainability Champion Award. The awards program is a project of the Colorado Department of Public Health and Environment (CDPHE) with support from Connected Organizations for a Responsible Economy (CORE), the Colorado Environmental Partnership (CEP), and ColoradoBiz Magazine. More than 40 companies participated in the awards program that recognizes Colorado-based organizations that have gone above and beyond to make a measurable contribution to the environment, the economy, and society.

■ **International Air Travel Rebounds in April:**

IATA announced traffic results for April which showed a rebound in international markets with 16.5 percent growth compared to April 2010. While this is exaggerated by the comparison to April 2010 during which European airspace was closed due to the volcanic ash crisis, international travel markets in April had grown to reach a level 7 percent higher than the pre-recession peak of early 2008.

IDS deices 10,000 planes for a season record

Integrated Deicing Services in Detroit announces it has safely deiced 10,000 airplanes for the season on March, 24, 2011. From the company's international headquarters in Manchester, New Hampshire, President and CEO Sal Calvino said, "Our people in Detroit are among the best in the business. They are highly skilled and perform extremely well as a team. You cannot deice 10,000 airplanes without the kind of leadership that Station Manager Dave LeLand provides. I am very proud of him and his whole crew." IDS employs approximately 150 people from the area.

It uses forced-air technology to save carriers money by using less glycol; the method is better for the environment as well, the company says. IDS operates ten stations in the United States.



Partnerships/ Acquisitions/ Contracts

■ **ASIG commences services for SAS at O'Hare:** ASIG announces it has been awarded a new contract to provide ground handling services for SAS at Chicago O'Hare International Airport (ORD). ASIG currently provides SAS with aircraft refueling, deicing, and passenger handling services at ORD. SAS has also renewed its agreement with ASIG for the provision of ground handling, cabin cleaning, passenger handling, and aircraft deicing services at Newark Liberty International Airport (EWR).

■ **Fortbrand Services and AI-jon Manufacturing LLC announce sale of nine snow removal vehicles to CVG:** Fortbrand Services, Inc., the exclusive worldwide distributor of the Vammas snow removal product line, and AI-jon Manufacturing LLC,

DOW introduces Type IV deicing and anti-icing fluid

Dow Chemical Company announces the introduction of UCAR™ FLIGHTGUARD™ AD-49 Type IV aircraft deicing and anti-icing fluid. UCAR™ FLIGHTGUARD™ AD-49 is a propylene glycol-based SAE AMS 1428 fluid that offers industry-leading minimum holdover time performance in the weather condition category "Snow, Snow Grains, or Snow Pellets" between seven and 27-degrees Fahrenheit, as well as state-of-the-industry holdover performance across all other weather condition categories. Dow says the new product can now be ordered for the upcoming 2011-12 winter flight season.

manufacturer of the Vammas snow removal product line, announces the sale of nine Vammas PSB 5500 multifunction snow removal vehicles to the Kenton County Airport Board for use at Cincinnati-Northern Kentucky International Airport. The units will be delivered during the 2011-2012 winter season, with the first delivery occurring in November 2011.

■ **Cavotec wins order for equipment at Dubai International Airport:** Cavotec announces its latest award of a multi-million euro contract with leading construction contractor, ALEC, to supply, supervise installation, and commission 58 Cavotec pre-conditioned air (PCAir) and 400Hz power pop-up pit systems at Dubai International Airport's new concourse 3. Delivery is due to start in Q3



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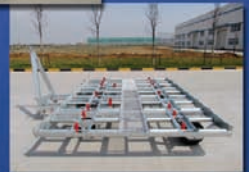
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this year, with commissioning planned for 2012. The units are designed for use with many aircraft types, especially for the superjumbo Airbus A380. Eighteen of Concourse 3's 20 stands will be built for use with the superjumbo, making it the world's largest A380 terminal. Concourse 3 is scheduled to open in 2012. Once complete, Dubai International will cater to more than 70 million passengers a year, helping to support the expected growth in Dubai's air traffic for the foreseeable future.

■ **Menzies announces security partnership and cargo crime prevention MOU signed with DHL Global Forwarding at Hyderabad:**

The company announces that DHL Global Forwarding (DGF) - freight forwarding division of DHL, signed a security partnership and cargo crime prevention MOU on with Hyderabad Menzies Air Cargo Pvt. Ltd. (HMACPL). The MOU sets a framework for DGF and HMACPL to work together in producing a Standard Operating Procedure which supports the security requirements and practices of both partners to ensure an effective, safe, and secured supply chain for the air cargo industry. Both partners will share best practices to arrest cargo crime activities, creating a safe working environment for the employees of DGF and Menzies HYD.

People in the News

■ **Swissport names general manager of operations in Munich:**

Swissport Losch has nominated Christian Zweifel as the new General Manager of Swissport Losch Operations in Munich as of June 1, 2011.

■ **Swissport Fueling among the winners of the NPMA Awards 2010:**

The SFS organization emerged as a winner of the Silver Nozzle Award 2010 for Outstanding Organizational Excellence in Aviation Fuel Support, for its operations at Phoenix Sky Harbor International Airport. The Silver Nozzle Award is presented to "the most outstanding major airport refuelling operation in the country." Three SFS employ-

ees from other U.S. airports were the winners in the following categories:

Station Manager of the Year:
Jim Stucky (Chicago Midway International Airport).

Operations Manager of the Year:
Donald Scott (Oakland International Airport).

Facility Manager of the Year:
Robert Carroll, Jr. (Phoenix Sky Harbor International Airport). ■



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Jazz



Plays a GSE Gambit

The carrier implements an ambitious strategy to renew its ground support fleet.

By Lisa Haddican

Jazz Aviation LP (“Jazz”) rose from the merger of four regional carriers in Canada in 2002. Its diverse business model includes three primary pillars: acting as a regional carrier for Air Canada, providing independent charters and services, and most recently taking on new business for Thomas Cook Canada Inc. With much action happening in its flight portfolio, Jazz’s GSE

component has not been overlooked. In fact, the carrier is making aggressive strides in an effort to renew its GSE equipment fleet.

BUSINESS MODEL

The regional carrier’s operations consist of some 800 flights per day to more than 80 destinations in North America. Its main customer is Air Canada, and Jazz operates these

flights under a capacity purchase agreement. (Just this year, Air Canada announced the rebranding of all its regional operations to “Air Canada Express” resulting in the elimination of the “Air Canada Jazz” brand name.)

Paul Wells and crew chief Paul Hennie inspect a towbar head at the equipment shop at Toronto Pearson International Airport.



Also, Jazz continues to pursue new opportunities to expand its business.

In 2010 it signed a five-year agreement with Thomas Cook Canada Inc. to operate B757-200s from the November-through-April season from Canadian gateways to various sun destinations. These flights operate under the brand name Thomas Cook Canada. Also in 2010, the company made a significant investment in Pluna, a regional airline based in Uruguay.

The melding of multiple carriers in its origination has also led to a diverse



ground handling model. The company owns about 2,300 pieces of GSE in total, according to Paul Wells, system support and GSE manager at Jazz. At line stations, such as Bathurst, New Brunswick and Sydney, Nova Scotia, the company owns its own GSE, however, contracts services out to suppliers at the airports. “We’re trying to strike a balance in these situations where it makes sense to own equipment,” Wells explains.

At its main hubs, which include Toronto, Calgary, and Vancouver, the carrier does not perform ground handling. That’s conducted by Air Canada, which also owns all the ramp equipment at those locations.

Jazz aircraft on the ramp at Toronto Pearson International Airport.



However, the company does perform maintenance services for aircraft at those stations, as well as in Halifax and London, Ontario. Accordingly, GSE equipment and some tooling such as aircraft jacks and work stands, falls under the GSE category and responsibility.

The company does perform some of its own ground handling services at stations such as Victoria, London (Ontario), and Val-d’Or, where ground operations were in play before the merger and retained.

INVENTORY & MAINTENANCE TRACKING

With a mix of equipment and operations throughout its network, a better way of tracking equipment was needed, according to Wells. The company headed an ambitious initiative to collect accurate data on each piece of equipment, including type and model, and input it into a new system called TRAX. It’s a system that Jazz

has used to track aircraft maintenance, and recently the company chose to begin utilizing a GSE module.

“The program helps provide good visibility on our equipment and maintenance,” Wells says. “One of the biggest challenges with equipment across the continent is to understand what you own and to ensure you have the make, models, and serial numbers of everything in a system to



Jazz’s maintenance hangar operation at Toronto Pearson International Airport.

assist in scheduling, performing, and tracking maintenance.”

The process included validating existing data and aggressively collecting new information, which took about a year, according to Wells. He points out that maintaining the inventory will be an ongoing effort. However, he has seen the benefits first hand, as the system allows a user to track PMI schedules on each type of unit, as well as oversee and generate work orders instantly. Also, the system allows the company to accurately track the total cost of ownership of each unit, and set PMI targets (currently set at 90 days for most equipment types).

“Another important aspect is to develop a realistic maintenance program that ensures safety, meets code, satisfies your reliability needs and is able to be executed,” Wells notes.

The company uses tractor units to tow aircraft longer distances from the hangar to the ramp at Toronto Pearson International Airport.



TELEMETRY INITIATIVE

The company is looking to take tracking of equipment one step further. Wells says they are working on a business plan to implement GPS tracking on some of the equipment to gather useful data on usage patterns as well as reduce fuel and maintenance costs. "This also aligns with our goal to reduce

our carbon footprint and get a feel for how much equipment you truly need," he explains.

Jazz is demoing a tracking unit on a service vehicle in the system. Initial results have found that idling constituted 77 percent of the total engine run time. "If you can reduce that even by 25 percent, just think of



the fuel and maintenance reduction," he says.

When it comes to the cost of the system, he says the anticipated return is well worth the investment. "I think even with the costs, the projected savings on ground damage, productivity, fuel, and maintenance will outweigh that," he says, adding that Jazz is hoping to begin utilizing the system in some stations by the end of the year.

FLEET RENEWAL STRATEGY

The new inventory system and GPS tracking initiative will serve as major components to the company's overall fleet renewal strategy, according to Wells. The general scheme currently in motion for replacing equipment is every ten years for a service vehicle, and every 15 years for a GSE unit. "We're replacing 20 or so pieces of equipment a year," he says.

However, Wells notes that the new initiatives in play will help to more accurately record a unit's viability within a fleet. "We realize that age alone doesn't dictate replacement," he says, adding that the new programs will also help to decide the need for additional equipment at locations.

Both the maintenance and GPS tracking initiatives will help Jazz keep a handle on its equipment. As the company continues to diversify by pursuing new lines of business, such programs will no doubt be paramount in ensuring the right equipment is in place when needed to keep the planes ready to fly. ■

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Leipzig/Halle Emerges from the Shadow

The airport has advanced to become one of Europe's modern airports with a sophisticated infrastructure.

By Manik Mehta

When the Berlin Wall came down heralding the demise of the communist German Democratic Republic, many airports in East Germany had until then been officially protected by the regime which was more concerned about the prestige attached to such airports rather than worry about the financial drain they caused or the utility value they offered.



Leipzig/Halle Airport

In those times of upheaval, many airports in East Germany were unsure of the fate that awaited them in reunified Germany.

Nearly two decades later, many of the East German airports have not only surmounted the uncertainties of the dramatic political upheavals but also asserted their unique characteristics in a highly competitive environment.

Leipzig/Halle, the combined airport at the vortex of the two cities Leipzig and Halle, has stepped out of the overbearing shadow of other airports. Indeed, the "new kid on the block", as

some European aviation experts call it, is quietly making its presence felt.

A CARGO HUB

Leipzig/Halle airport has advanced to become one of Europe's modern airports with a sophisticated infrastructure and, as the airport representatives like to point out, with "ideal accessibility by rail, road, and air".

Flughafen

Leipzig/Halle GmbH, the company that operates the airport, is part of a group called Mitteldeutsche Airport Holding (MAH) which also has other associate airport companies such as Mitteldeutsche Flughafen AG, Flughafen Dresden GmbH and PortGround GmbH (which looks after aircraft/cargo handling and de-icing

issues). The majority shareholder in Mitteldeutsche Airport Holding is the state of Saxony (76.64%), while the remaining shares are held by the state of Saxony-Anhalt (18.54%), the cities of Dresden (2.52%), Leipzig (2.10%) and Halle 0.20%.

"We are the second largest cargo airport in Germany after Frankfurt, and among the top ten cargo airports of Europe. Unlike other

Dierk Naether, managing director of Leipzig/Halle Airport



German airports, whose operations are restricted by night flight bans, we have a 24-hour operation service for freighter aircraft. Besides this major advantage, our position in the midst of Central Europe with connections to a dense trans-European highway network is another attraction for airlines and logistics companies," Dierk Naether, managing director of Leipzig/Halle airport, said in an interview with *Ground Support Worldwide* at the recent Transport/Logistics show in Munich. "We also have a parallel runway system; intercontinental flights have no payload restrictions," he added.

The airport's passenger and cargo traffic has been growing, though its cargo traffic has elevated the airport to become Germany's second leading cargo airport after Frankfurt. While some 2.4 million passengers were clocked at the airport in 2010, the cargo volume last year surged to 663,000 tons, up from 524,000 tons in 2009.

Juggling with figures, Naether pointed out that over 3,000 cargo flights take off from the airport each

Aerial view of Leipzig/Halle Airport



week to more than 50 destinations in more than 30 countries.

In the first two months of 2011, however, the airport had some 249,000 passengers, down 9.2 percent over the year-earlier period. Naether tried to put the figures in "proper perspective", arguing that the declining numbers might look "quite dramatic" on the surface, but the drop in passenger numbers was due to the fact that 70

flights bound for Tunisia and Egypt were cancelled because of the turmoil in those countries. "Had we had these [flights], we would have posted a modest plus," Naether said.

Capacity at the airport is currently much lower than its limit, which is 4.5 million passengers annually, Naether said. The 2.4 million passengers clocked in 2010 suggests a 2.6 percent decline over 2009.



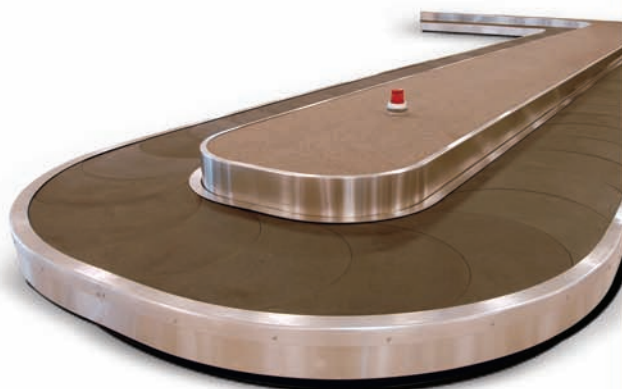
DHL operation at Leipzig/Halle Airport

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EXPANSION

Leipzig/Halle airport handled some 111,000 tons of cargo in the first two months of the year, a 17.1 percent increase over the year-earlier period. But the driver of this growth, according to German experts, is the express company DHL, part of the Deutsche Post stable. Since DHL's relocation to Leipzig/Halle in 2008, the airport has recorded a steady cargo growth, ousting rival Cologne/Bonn airport from the number two spot.

Naether says the airport would like to have more cargo flights. The airport has earmarked over 50 million Euros for expansion work this year. A large part of the allocation will be for the construction of a maintenance base in the northern wing for the Russian cargo carrier Volga-Dnepr which deploys the large-bodied Antonov aircraft. The airport also plans to allocate some additional space for DHL. For the horse-riding show called *Reitmesse Partner* held in April, a special section — the "animal lounge", as it is called — was opened for the transport of live animals.

Naether expects cargo volume to post double-digit growth again this year. But the Leipzig/Halle airport is also "expanding its horizons" and does not just want to be a "corner in the traffic to and from Eastern Europe," an airport representative says.

TARGETING ASIA

The airport has also set its sights on Asia as recent moves by its management reveal. The airport's chairman



LOGISTICS SECURITY

Cargo experts say that Aerologic will increase the airport's airfreight and express business to and from Asia, the Middle East, and North America.

Indeed, Leipzig/Halle serves destinations as varied as New York, Cincinnati, Hong Kong, Delhi, Singapore, Seoul and Lagos.

An "interesting project," as Naether puts it, is the Logistics

Security Center (LSC) being set up by DH-Beteiligungen at the Cargo Area South to ensure safe shipment, storage and handling of high-value products and industrial goods. This, as Leipzig/Halle representatives have been touting, will create a "perfect environment" for the business of those concerned about security. ■

Markus Kopp has already visited China which he describes as the world's "most dynamic market for air cargo traffic," with hubs Hong Kong and Shenzhen assuming dominant positions in that region.

Since October 2010, Leipzig/Halle has a partnership cooperation with Shenzhen Bao'an International Airport which with 605,000 tons a year is China's fourth largest cargo airport. Kopp saw a strong basis for a "strategic cooperation" between the two airports.

The aircraft operated by AeroLogic, a Leipzig/Halle based joint venture between DHL Express and Lufthansa-Cargo, fly to Hong Kong, establishing a direct link between Asia and Central Europe. Kopp has been highlighting Leipzig/Halle's connectivity to the Trans-European highway and rail network, thus making it an "ideal partner" for traffic to Europe and the Asian growth markets.

Much of Leipzig/Halle Airport's cargo business relies on express traffic. "We are the gateway to Eastern Europe but we are also keen to expand into new markets," Naether says.

The airport got a big boost in 2008 when DHL started to deploy 50 cargo aircraft at the airport per night, handling up to 2,000 tons of cargo each night. The airport's position was further strengthened in 2009 when Aerologic made Leipzig/Halle its home base with a fleet that includes eight B-747F aircraft.



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Vertical Integration

'FBO of the Plains' finds success in airline ground handling

By Brad McAllister, Associate/Technology Editor, Airport Business Magazine



The Trego/Dugan family of companies, headquartered in North Platte, Nebraska, has been in business for 46 years and specializes in aviation services including jet management, private jet charter, aircraft acquisition, jet and turboprop maintenance, avionics, and FBO Services.

A family-owned and managed aviation services company that provides more than 100 jobs in five states, Trego/Dugan has shored up a new service offering in recent years — airline ground handling. As of June, the company will handle 17 flights per week for Allegiant in four cities (Grand Island, NE; Pueblo, CO; Minot, ND; and Bismark, ND), and 14 flights per week for American Eagle in Grand Island.

Comments Trego/Dugan Aviation of Grand Island Inc. president, Vincent Dugan, "For smaller cities that have less than daily commercial service, you must have a turn key solution for the airline with respect to ground handling.

"The airline is not going to want to put their own employees there because it's not cost effective. The airline then has three choices: do it themselves;

Trego/Dugan has some 35 mostly part-time employees dedicated to airline ground handling.



Top: Vincent Dugan;
Bottom: Trego/Dugan provides ground support services for 17 flights per week in four cities for Allegiant Air.

get the local FBO to do it; or the city can reach out to a third-party service provider like Trego/Dugan to do ground handling, which can be done profitably."

A FRACTURED INDUSTRY

Nicknamed the 'FBO of the Plains', Trego/Dugan began as a traditional FBO at the North Platte Regional Airport. A mid-continent refueling stop, the FBO has an additional location at the Central Nebraska Regional Airport in Grand Island, and a jet management division located at the Chicago Executive Airport, some 18 miles northwest of Chicago.

Says Dugan, "Flexibility in management is important; you don't want to be doing things you don't make money at. We are willing to adjust in an ever-changing business.

We are vertically integrated by doing a variety of different things, and the areas we found to be profitable are jet charters, aircraft maintenance, and fuel sales. Now we add to that mix airline ground handling.

"The FBO industry is a fractured one with many legacy FBOs specializing in one service. FBOs that have been doing this for 40 or 50 years — some people don't adjust to change well. I don't feel the shackles of having to do only one thing; ground handling may not be as sexy as flying a Learjet 45 for celebrities, but it's down and dirty and it pays bills — it has our attention."

Airlines need quality ground handlers, and for a lot of cities a company like Trego/Dugan can be the answer, he adds. Dugan relates that smaller markets are right for low-cost carriers, and Trego/Dugan is prepared to expand its ground handling services to any of these markets.

"If an FBO is uncooperative on fuel cost or deicing or ground handling, I tell the airport there is no aspect of handling this aircraft that I cannot do," remarks Dugan. "So if you can figure out how I can do it with respect to your minimum standards, I can do fuel too. I can de-ice. If I have the access I can do every aspect of it; this is why we are particularly well suited to do this. We are not afraid to do any aspect of it."

LABOR; EQUIPMENT

Dugan says the company has some 35 mostly part-time employees dedicated to airline ground handling.





Alligiant offers flight benefits for Trego/Dugan's ground handling employees, many who are students.

"The key is having a strong station leader; we control our ground handling operations from North Platte. We have people who a lot of what they do is make sure we stay organized with billing, and control of the main cost item, which is labor," he relates.

Alligiant offers flight benefits for Trego/Dugan's ground handling employees, many who are students. The ground handling work isn't a fit for traditional employees due to the nature of the work schedule, says Dugan.

With regard to ground support equipment, some is purchased and some is provided by the airline. "You have to be ready to adjust," explains Dugan. "Sometimes the airline wants to own it, in some locations we own the equip, and in some locations the city even owns it."

On GSE maintenance, says Dugan, "Airline ground handling is an important part of our future and we cross-train people that work in other areas. A flight instructor can also be trained in ground handling for extra money and flight benefits.

"Generally we take care of our own equipment; people are not hired to be inside or outside — we hire to cross train."

MOVING AHEAD

In Grand Island airline ground handling adds more than 500,000 gallons in fuel a year, but with airline fuel, the company doesn't charge anywhere near the margin it does on private jets, relates Dugan. "It's an everyday thing, you've got to be cooperative with the airline and you've got to make it so the

airline wants to buy fuel," he adds.

"We do this on a per-turn basis; I don't charge them any margin. They pay for the fuel, they pay me to pull the truck up and pump the fuel, and what I charge

for that varies on the size of the airplane.

"I always looked at this as: I have to go to the airline to get more of this business.

"But I've now realized that the cities are who I should be talking to. It's the cities that have the vested interest in this airline service, and we have a solution. We will do it, we want to do it, and we like to do it." ■

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The Airline ‘Extras’

Not every airline catered to the fine sensibilities of the passengers, even back in those halcyon days of the ‘50s.

By Tony Vasko

In these days of charging for every “extra” service like checking your bags or daring to expect something to eat on a flight, it is interesting to think back to those days when service was simply expected as part of the flight.

One of the airline customers who we maintained had Spartan seating in a single class cabin on the DC-4 and DC-6 they utilized between New York and San Juan. The DC-4 offered the luxury of old-fashioned fans mounted on the hatracks. These blew air down on the passengers, most of whom were migrants fleeing from the poverty of Puerto Rico to the poverty of Spanish Harlem in New York City.

LIVING HISTORY

This was the only air conditioning provided, because the DC-4 was not pressurized and had no cooling system. Indeed, cabin air circulation was only provided by ram air blowing into scoops while flying. Actually the seating on the Trans Carib DC-4 was quite commodious compared to a DC-4 specially fitted to carry farm workers from the islands to the states.

It had 100 seats fitted — lightweight ones of canvas stretched between the metal frames with a little padding. The airline had special dispensation, successfully proving that the farm workers weighed less than the average American. With only two latrines at the rear.

Another luxury not available, even to the haughtiest of passengers with the priciest of tickets in those days were loading bridges. Aircraft were not nosed into gates but parked

parallel to them so they could taxi in and taxi out. Often the planes were double parked so the walk from an aircraft on the outside to the terminal could be several hundred feet in wind and weather, puddles, snow, and whatever.

LOOKING BACK

Because the migrants were coming from a hot and humid San Juan, they were not prepared for the icy blasts crossing Idlewild’s ramp. The now long-extinct Trans Caribbean Airlines had the stewardesses issue a blanket to the lightly clad passengers as they exited the airplane. Mothers with babies in arm would wrap themselves and baby, and trudge to the distant door of the tin shed finger. There waited an agent who whipped the blanket off as soon as they entered the door.

Another DC-4 operator, Cinta Airlines, missed an opportunity too. Their non-pressurized airplanes were equipped with oxygen needed for the crossing of the Andes Mountains. A clear plastic hose was provided at each seat. Open the little garden type faucet valve, insert end of hose in mouth (carefully sanitized after each use with a rag soaked in alcohol) and you could suck on the stream of pure oxygen and stay conscious. Today that would certainly be a \$10 extra charge and, no, we don’t take credit cards in flight.

Checked bag fees are nothing new but used to be charged only for excessive baggage. Those familiar with the Christmas holiday rush into the Caribbean region will know that many people come from the North to shop.

They had piles of luggage to check and the airline could charge for it.

The check-in counter lines at Christmas in the Miami terminal looked more like the shipping counter at Fed Ex or UPS with piles and heaps of boxes and parcels, many ill-shaped for cramming into baggage compartments. It would get so voluminous that Eastern would actually charter a cargo plane to haul the excess to the destination. So, while you were whisked there in a B727, your bags were chugging along later in a tired old DC-6 that would arrive somewhat later as it was 300 knots slower.

One thing that was not available to passengers then were cell phones with cameras. This prevented them from looking out the cabin window and capturing rampies abusing their luggage. There have been some very amusing U-Tube segments featuring rampies hurling, dropping, and sometimes rolling tractors over passenger bags.

EARLY TECHNOLOGY

Sometimes it’s not the rampies who mangle bags. With the advent of the widebody, they replaced the baggage sorting system at Eastern’s terminal at JFK. The terminal was poorly designed to start with, insufficient room having been provided for bag sorting and claim, and it took some shoehorning to get the new conveyor systems in.

At one point in the system, a feeder belt came down at a fairly steep angle and fed bags onto the main belt. A sensor system would momentarily stop the feeder conveyor if there was a bag in the way on the

main belt. After some initial debugging, it was set in motion and a bevy of vice presidents, flunkies, and directors came up from Miami to view its wonders. I was in technical services catering to broken airplanes and had absolutely nothing to do with this system. Nevertheless, I was requested to accompany the group. It was an impressive forest of conveyors, belts and early scanning technology, and it was in full flow as we walked around in the basement area.

At the aforementioned conjunction of main belt and feeder, I remarked that I hoped the sensors worked because the bags were really whizzing by at a fast pace. The facility VP immediately took umbrage that anything could be deficient in this wondrous system. About that time passengers' luggage had started growing wheels and handles, making moving them about easier. With the whole group digesting my rebuke, down the steeply sloped feeder came a large, heavy bag. Another bag was coming along on the main belt so the sensor dutifully stopped the feeder conveyor. Nice, but the bag had its own wheels and just rolled ahead on its own instead of being stopped by the conveyor belt. It sped down and jammed against the other bag. More bags came, there were crunching noises and we realized there were bags spilling out and no room left in the confined area for us.

We also noted another deficiency, no "Emergency Stop" button anywhere in sight. Wheeled bags turned out to be a bane of the system and only training the agents on the need to place the bags into the system wheels-up helped.

SANDWICH WARS

I have also avoided airline food. It has been a butt of many jokes but, in truth, some of it was quite good. How many remember the great "Sandwich Wars" when tourist class was introduced on international flights?

The rules in force at the time said you could not serve a meal to tourist class, only sandwiches. The intention of course was to confine these steerage passengers to the stale bread slices, separated by a limp piece of lettuce and a slice of baloney. These were packed in a cake box along with an apple or a banana, and a stale oatmeal cookie.

However, the marketing people are ever innovative and, recognizing that a "sandwich" was something placed on bread, started serving meals on the bread. Eventually, the rules were changed and the airlines could serve what they wanted. This of course was either "mystery meat" or rubber chicken. Now you pay extra for that sandwich. ■

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Fatigue Hazards: How Can You Prepare?

Managing fatigue risk using a systematic approach

By Katrina Avers, Ph.D.

Did you know that human fatigue can be just as dangerous as metal fatigue? Sleep loss and extended duty hours can leave you with progressive and localized structural damage to your body and your organization. Repeatedly not getting enough sleep is believed to increase the risk of a variety of chronic medical problems, including obesity, depression, gastrointestinal problems, compromised immune function, substance abuse, and cardiovascular disease.

At the corporate level, sleep loss is costing U.S. employers approximately \$136 billion per year or more in lost productivity due to things like do-overs and lost time on task. This does not include the fatigue-related costs associated with incidents/accidents, insurance, healthcare, etc. Although the effects of fatigue can be even more far reaching, the evidence sufficiently highlights it as a hazard that warrants both personal and corporate attention.

The FAA has been working to develop guidance for fatigue risk

management systems (FRMS) in aviation operations. An FRMS is a scientifically based, data-driven process that can be used to monitor and manage fatigue risks. An FRMS has the flexibility to encourage operational efficiency while reducing fatigue risk and associated safety hazards. The conditions that produce fatigue originate both in the workplace and in the employee's personal life. For an FRMS to be effective, everyone must take some responsibility for fatigue factors (i.e., the maintainer, the manager, the executive).

FATIGUE RISK MANAGEMENT

In the workplace, a number of factors can influence fatigue, including working hours, staffing levels, and the availability of break periods. Alternatively, personal factors can also lead to fatigue, including social and family commitments, commute time, second jobs, and medical conditions that may reduce the quality or quantity of sleep.

The employer has a responsibility to utilize available resources to

manage fatigue risk and optimize the safety of their tools and products while

the employee has a responsibility to ensure, as much as possible, that he or she is rested and "fit for duty" before reporting for work.

Fatigue risk management systems are widely used to manage fatigue among flight crews, the railroad industry, and drivers of commercial vehicles, among others. Successful implementation of an FRMS in these industries has yielded substantial improvements in personal health and well-being, as well as significant improvements in safety and reductions in organizational costs. For instance, Schneider National Inc., a multi-national trucking company, has reported more than a \$10 million dollar savings in annualized health care costs alone.

Despite the documented benefits of fatigue risk management systems, they are still uncommon within aviation organizations. A number of different approaches can be used to implement an FRMS in aviation ground operations and can be considered as layers of defense in the "Swiss Cheese" model.

In the typical aviation ground operation, three goals can be identified for an effective FRMS: 1) reduce fatigue to an acceptable level, 2) reduce fatigue-related errors, and 3) minimize the consequences or harm of fatigue-related errors.

To be effective, a combination of approaches or countermeasures should be used to accomplish each goal and prevent an error from occurring. Countermeasures directed toward each goal can reduce the likelihood of fatigue-related errors and the magnitude of their consequences.



The FAA has been working to develop guidance for fatigue risk management systems (FRMS) in aviation operations.

Some of these countermeasures are currently being applied within the industry, while others may be feasible in the future.

REDUCING FATIGUE TO AN ACCEPTABLE LEVEL

The first and most obvious goal of fatigue countermeasures is to reduce the level of fatigue experienced by personnel at work. Fatigue reduction interventions are intended to minimize fatigue in the workplace. Recognize that complete elimination of fatigue is not always practical. Workplace interventions can include duty time limits, scientific scheduling, napping, education, excused absences, and in some instances, medical testing and treatment.

The first level of defense against fatigue requires both employee and employer engagement. As an individual, you must apply fatigue

education to your life outside of work to proactively reduce fatigue. At the same time, the employer must review workload and scheduling practices,

Despite the documented benefits of fatigue risk management systems, they are still uncommon within aviation organizations.

organizational policies, and on-the-job fatigue countermeasures that could be used to reduce fatigue.

REDUCING OR CAPTURING FATIGUE-RELATED ERRORS

Despite efforts to ensure that employees are well-rested and alert when they report for duty, it is not possible to completely eliminate fatigue from the workplace. For

example, if you come to work rested but end up working for 20 hours straight, you will likely be fatigued.

Accordingly, you must present a second line of defense that either prevents the likelihood of an error among fatigued workers or mitigates fatigue-related errors once they have occurred. In other words, we know that people are going to be fatigued at times, so we must consider how to manage the risk when a fatigued maintainer is at work.

These interventions can involve two approaches: measures directed towards reducing the risk of the individual and measures directed toward reducing the risk of a task. For example, to reduce the risk of a fatigued individual you can institute work breaks and simplify work tasks. You should try to prevent fatigued workers from performing the critical tasks.

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MINIMIZING THE CONSEQUENCES OF FATIGUE-RELATED ERRORS

After efforts have been made to reduce fatigue and prevent or capture fatigue-related errors, a final line of defense is to minimize the harm caused by these errors. Although many elements of ground operations can affect flight safety, the risk level of a task varies along a continuum that ranges from the most safety-critical to the least critical.

For example, checking the expiration date on life jackets or returning work stands to storage areas when fatigued is less safety critical than conducting a dye penetrant inspection on the engine component.

Minimizing the consequences of fatigue-related errors focuses on managing the severity of an error's consequences. Despite our best efforts, fatigue-related errors will happen from time to time. We need

FAA's award-winning video "Grounded," a computer-based fatigue countermeasure workshop, fatigue awareness posters, and a fatigue focus newsletter can be accessed via FAA's website for maintenance fatigue; www.mxfatigue.com.

to make sure these errors do not have serious consequences.

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Even a well-rested employee can commit fatigue-related errors if he or she is working the back side of the clock. Effective fatigue risk management requires that everyone take responsibility for the problem and utilize multiple mitigation strategies.

FRMS TOOLS YOU CAN USE NOW

The FAA’s multi-disciplinary maintenance fatigue work group has developed a subset of the tools that you can use to reduce fatigue risks in your organization. These tools address fatigue awareness and education, fatigue assessment, workload and scheduling, and return-on-investment. The resources are available on the FAA’s website for maintenance fatigue (www.mxfatigue.com).

The fatigue awareness and education tools include FAA’s award-winning video “Grounded,”

a computer-based fatigue countermeasure workshop, fatigue awareness posters, and a fatigue focus newsletter. All of the tools were designed to communicate the hazards of fatigue, the indicators of fatigue, and methods to eliminate or reduce fatigue in an organization.

These fatigue assessment tools were developed to improve both personal and organizational assessment of fatigue. The available data show that individuals are poor judges of their own fatigue levels, and employers are asking the wrong fatigue-related questions when incidents/accidents happen. To address these issues, the workgroup has developed a self-assessment checklist and a fatigue assessment form (for investigating accidents/incidents and normal operations).

Additional tools that may be beneficial to your organization

include a workload and scheduling tool and an automated return-on-investment model. These tools are currently under development and can be used as management decision aids to improve fatigue risk assessment and support the appropriate implementation of fatigue countermeasures. The tools will be available for public use by September 2011.

TAKE HOME MESSAGE

Fatigue is a hazard that has serious negative effects on personal health and occupational safety. We can all do better at managing fatigue risks in our organization. Employees and employers alike can use available tools to manage fatigue and subsequently improve the efficiency and safety of their organization. ■

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SAE Deicing Committee Meets in San Francisco

The topics discussed include deicing fluid and equipment.

By Lisa Haddican

Attendees — comprising of airlines, OEMs, suppliers, and consulting firms — converged at Intercontinental Mark Hopkins from May 12-19 in San Francisco for the SAE Technical Committee G-12 Aircraft Ground Deicing meeting.

The SAE Technical Committee G-12 Aircraft Ground Deicing consists of eight subcommittees that address elements of equipment that include design, maintenance, operation, and in-service experience.

The topics discussed included aircraft and runway deicing fluids, deicing facilities, and emerging equipment technology, among others. Here are some of the highlights of this year's meeting.

G-12 AIRCRAFT DEICING FLUIDS COMMITTEE

The committee's meeting included an update from the European Aviation Safety Agency. Alberto Fernando Lopez of EASA discussed a recent study of deicing services at European airports.

The study was conducted by independent contractor, AirSight. Lopez explains that the study was aimed at investigating existing European national regulations, as well as examining the availability of fluids, costs associated with operations, and to provide recommendations.

The study began in April 2010 and included surveys sent to airlines, airports, deicers, and authorities. The interim report included the results of the survey. In December 2010, there was a stakeholders committee, which included the survey respondents.

The final report was issued on May 2011 and is available on the EASA website. The contents include a cost model of deicing provisions, recommendations to EASA and an impact assessment of recommendations. The recommendations in the study included improved coordination with European authorities, the FAA and Transport Canada. Also, it recommended the collection of more safety data as it pertained to incidents.

G-12 DEICING FACILITIES COMMITTEE

The facilities committee meeting included an update from airports in North America and Europe concerning the 2010/2011 deicing season. Many reported record winter seasons.

Mike Grantz of IDS gave an overview of deicing operations at some of its locations, including Detroit, Milwaukee, and MSP. "This was, by far, the busiest winter we have seen as a company," he says. MSP recorded its fourth snowiest season, and closed for the first time in 19 years. At that location, IDS deiced about 9,400 flights over the season. In Detroit, it recorded 70 inches of snow and the company deiced more than 10,000 aircraft with its fleet of 19 trucks, with an average throughput of 45 aircraft during the heaviest times, according to Grantz.

Frankfurt Airport also experienced a record deicing season, Oliver Arzt of N*CE Aircraft Services says. For the 2010/2011 season the company had a total budget of 5,001 aircraft deicings, which was based on a 10-year average. Overall, it performed 16,602 deicings — more than three times the anticipated number. Among the strategies that were put in place to cover the large volume include more stabilized feeding of aircraft to the deicing pad and improved availability of ADF. Arzt says new items in the 2010/2011 season included an Airport Collaborative Decision Making program to enhance

Inside a G-12 deicing committee meeting in San Francisco.





Inside a G-12 deicing committee meeting in San Francisco.

communications. "There is a lot of coordination required to make the most of airport throughput," he says.

Arzt says the company is in the initial talks to strengthen available infrastructure for future operations. The company will also expand its truck fleet from 42 vehicles to 51 going into the next season.

The facilities representatives also discussed deicing the A380. Ken Eastman of Servisair in Toronto says the company, which deiced more than 15,000 aircraft the past season, has deiced the A380 45 times, using six trucks on each operation. Arzt of N*CE Aircraft Services in Frankfurt says the company has deiced the superjumbo 55 times since it went into service. Mario Rosa of AeroMag 2000 said the company has begun deicing the superjumbo since it started service at YUL in 2010. To accommodate the aircraft, he says, the company has put a new procedure in place, which included modified safety zones for vehicles while aircraft are deiced.

MOVE TO A CDF

During the meeting, Brett Patterson, director, airside operations, Vancouver Airport Authority, discussed the airport's recent move to a centralized deicing facility. In the previous model, it had four deicing service providers for 37 carriers. There were three pads, and suppliers had 20 deicing trucks combined to provide services.

In 2008, the airport conducted a study of deicing operations to look at customer service, safety and efficiency. Through its analysis, the airport concluded that it would benefit from a common-use provider, as aircraft spent less time in

queue. The final study recommendations stated that the airport should move to a common-use provider, construct a new deicing bay and add deicing trucks to its fleet. Through a two-phase approach that began in 2009, the airport licensed a single-service provider (AeroMag 2000), purchased trucks and installed necessary equipment, such as message sign boards. Today, there are 22 trucks total and the facility has a blending station, HD cameras and 13.5 million liters

of effluent glycol storage capacity. In the 2010-2011 season, the facility deiced more than 2,000 aircraft. With a service delivery target of 80 percent, it has achieved 95.4 percent, which Patterson points to as a measure of the program's success.

G-12 EQUIPMENT COMMITTEE

The equipment committee discussed several topics, including forced air technology and blending systems. However, one popular topic that emerged during presentations was telemetry systems for tanks and trucks, and the technology's ability to accurately communicate fluid usage, improve safety, and reduce costs.

Jeff Gaskill, managing director at LAS-USA, discussed the company's battery-powered telemetry unit for glycol tanks. The system includes a level sensor installed in a tank, which is connected to the telemetry unit. The unit then reads levels periodically through-

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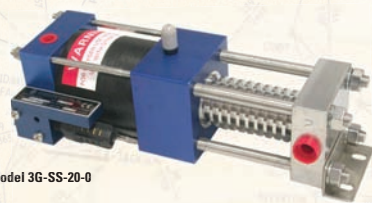
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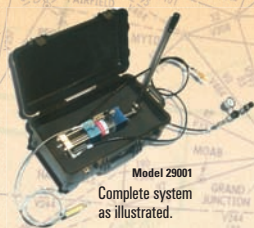
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out the day and stores measurements with time and date stamps. Customers can access the recorded information via a customized website and specialized reports. "We can run a plethora of reports on your fluid consumption," Gaskill explains.

Ed Sachs, deicer engineering manager at JBT AeroTech, gave an update on the company's Tempest telemetry system, which performs automatic monitoring, alerting and record keeping of fluid usage. It also has the ability to remotely control proportional mix settings and send fluid-spray data directly to invoice databases. It can also be integrated into existing systems, he adds. "We focus on onboard value-added. We understand that most customers and users already have systems on the landside," he says. "What we want to do is tie our information on fluid usages into your systems."

Greg Myers of ForgeFX discussed the Management Information Database Accounting System (MIDAS), which is a performance tracking system for both trucks and operators. "Our goal was to track every bit of data so that operators, trucks, and eventually entire fleets could be managed and the data could reflect what they were doing," he says. For operator performance tracking, the system offers an adjustable grading system and provides average service statistics for each operator. The system was designed in conjunction with Global Ground Support, but Myers notes that the system can be fitted to most other manufacturers' equipment.

Anders Larson also gave an update on Vestergaard's data transmission system, saying it is in use on about 150 units across Canada, United States, and Europe. The web-based system communicates data (such as fluid usage and operation time) using a GSM/GPRS system. One of the recent additions to the system is the tracking of the temperature at the nozzle for each individual job, he notes. ■

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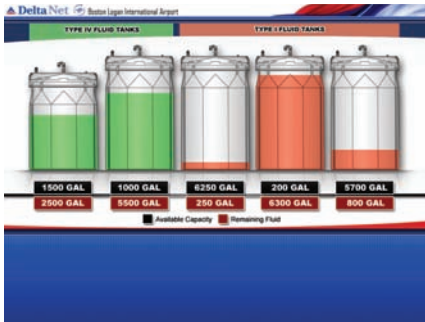
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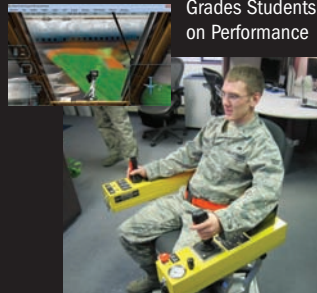
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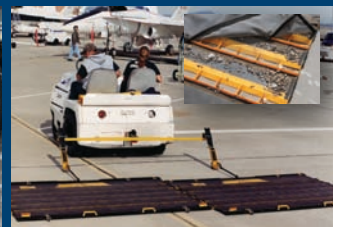


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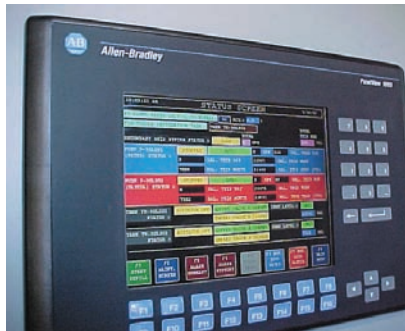
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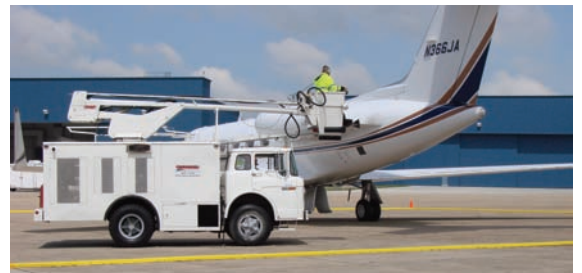
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DEICE-STIK™
Titan Logix Corp.

The Deice-Stik™ is the advanced solution for accurately measuring, controlling and reporting the application of aircraft deicing/anti-icing fluid from a deicing truck. Compatible with water, propylene and ethylene glycol, fluid level/volume is accurately measured using radar signal analysis.



FREEZE POINT+ DEICING
Vestergaard Company Inc.

Vestergaard offers Freeze Point+, the benchmark for aviation industry standards in glycol mitigation during deicing operations. With Freeze Point+ the operator can deice with a fluid blended to the freeze point (safety buffer included) utilizing the least allowable amount of glycol during the current weather conditions. The Freeze Point+ de-icing fluid blending system will automatically adjust the freeze point of the deicing fluid in accordance with the outside air temperature.



DEICING FLUID EQUIPMENT
VQuip Inc.

VQuip Inc. distributes the AR Plus line of high productivity aircraft deicing fluid collection, containment, separation, and processing equipment. The product line includes: Mobile deicing fluid collection machines; automated stationary pumping stations; catch Basin inserts for containment; spill control, and spent ADF recovery systems.

DEICING TRAINING
SIMULATOR
Global Ground Support



Global Ground Support's full-featured deicing simulator allows the user to deice and anti-ice different aircraft under a wide range of weather conditions. Two joysticks control all boom, cab and nozzle movements with the exact speed and commands as the actual Global enclosed cab controls.

speed and commands as the actual Global enclosed cab controls.

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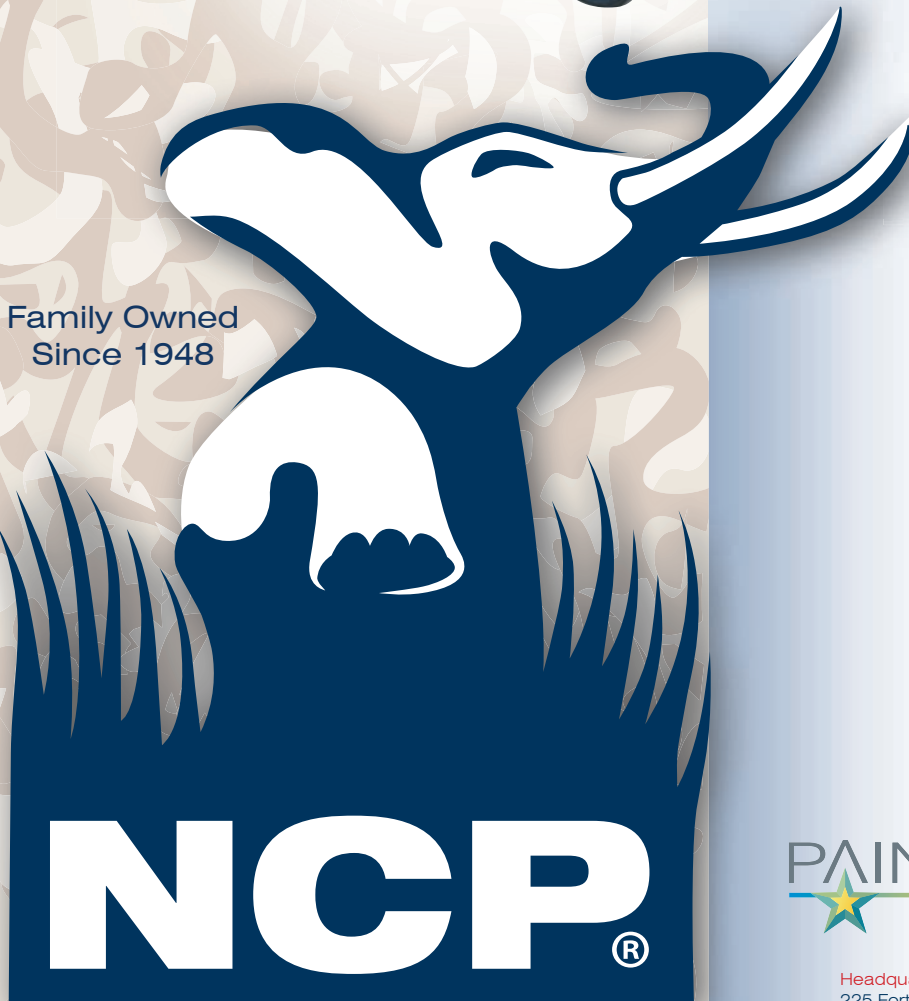
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