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# Ground Support

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## DEWEY KULZER

2019 LIFETIME ACHIEVEMENT

**GROUND SERVICE PROVIDERS**  
Air Canada Looks to Modernize GSE  
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The Pitfalls and Potential of Ground  
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**Rhenus Acquires Miami-Based Freight Logistics Group**

Rhenus acquired the international freight forwarder and logistics solutions provider, Freight Logistics, headquartered in Miami, Florida. Freight Logistics operates its own consolidation hub located near the International Airport in Miami, and has its own offices in Argentina, Brazil and Chile. Following prior acquisitions by the Rhenus Group in Brazil and Canada, the acquisition of Freight Logistics will further strengthen the presence of Rhenus Air & Ocean in the Americas.

Freight Logistics was founded in 2001 by Gabriel de Godoy in San José, California, the heart of Silicon Valley, with the aim of providing international transportation and fulfillment services to manufacturers, distributors, systems integrators and resellers of high technology products in the United States and Latin America. Today, the company specializes in supply-chain solutions, international transportation (air ocean), customs brokerage, compliance, warehousing and distribution. Freight Logistics is IATA-accredited and a licensed Non-Vessel Owning Common Carrier (NVOCC).

“The acquisition of Freight Logistics is an important step for us in expanding

our business activities in the Americas region and follows our latest acquisition of Rodair in Canada in the beginning of 2019. These steps enable us to consolidate our network there and to serve both North America and the Latin American region from Miami as our new gateway. This will help us live up to our goal of being globally oriented and we can establish more links between the continents,” says Jörn Schmersahl, CEO of Rhenus Air & Ocean Americas.

**Havaş Doubles in Size at Istanbul**



Havaş, a well-established ground handling services company, began its operations at Istanbul Airport, where the company has doubled in size its station and temporary storage buildings, service offices, equipment maintenance shop and parking areas. Following a 30-hour-long transfer operation from Atatürk Airport to Istanbul Airport, Havaş delivered 604 ground handling service equipment to its new facilities with 186 trailer trucks without experiencing any problems. The facilities of Havaş at Istanbul Airport cover a total area of approximately 40,000 square meters, where 20,000 square meters are indoor facilities.

Havaş General Manager Kürşad Koçak stated: “As part of the great transfer that we have recently achieved, we have moved from our facilities at Atatürk Airport to our new service buildings at Istanbul Airport. The first steps of Turkish civil aviation were taken by Atatürk Airport and I

believe Istanbul Airport will broaden new horizons for our country and the industry and make great contributions. In line with the capacity increase with the transfer to Istanbul Airport, so far, we have invested over €21 million for our new facilities. Our new temporary storage building has been built twice as big as the ones at Atatürk Airport. Our station building, equipment maintenance shop and parking areas were designed larger than our operation area at Atatürk Airport. We are providing service to 45 airlines with 1,200 employees at Istanbul Airport. We will enhance our collaborations at our new station at Istanbul Airport and maintain to be a preferred business partner”.

**WFS and Swiss WorldCargo Launch New York’s First GDP-Compliant Airport Facility**

Worldwide Flight Services (WFS), the



world’s largest air cargo handler and Swiss WorldCargo, the air freight division of Swiss International Air Lines and one of the industry’s leading pharma air carriers, opened New York’s first GDP (Good Distribution Practice) compliant pharma facility after achieving certification of its Building 66 at JFK airport.

The GDP certification confirms WFS’

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compliance with World Health Organization (WHO), IATA, and Parenteral Drug Association (PDA) quality standards for handling pharmaceutical and life science products, as well as with Service Level Agreements signed with individual airline customers in New York.

The opening of this pharma facility also closely aligns with key Swiss WorldCargo values of customer focus and quality care. In 2018, Swiss WorldCargo received a global CEIV certification, which ensures that the company adheres to the highest standards of pharmaceutical handling globally. The airline remains committed to providing the highest standards at its stations worldwide. With three daily flights from Zurich and Geneva, JFK is an important North America-gateway for Swiss WorldCargo.

WFS has also signed a 15-year lease on a new state-of-the-art, 346,000 square feet cargo terminal at the airport, the first phase of the Port Authority of New York and New Jersey's comprehensive Vision Plan. The facility, which will have a throughput capacity of over 300 million kilos a year, will offer improved cargo flows and reduced transfer times, shorter truck waiting times and incorporate the latest security and screening systems and procedures. It will also house dedicated facilities for temperature-controlled pharmaceutical products and perishables cargo when it opens in 2020/21.

### Gerry's dnata Becomes First Ground Services Provider to Achieve ISAGO Registration in Pakistan



Gerry's dnata, a leading ground services provider in Pakistan, has marked an important milestone in its ongoing commitment to safety and security. The

company has achieved IATA Safety Audit for Ground Operations (ISAGO) Registration in Pakistan, and obtained ISAGO Station Accreditation at Karachi International Airport following successful completion of ISAGO audits. Gerry's dnata is the first ground ser-

vices provider to be awarded the prestigious safety certification in Pakistan.

"We are proud to be awarded IATA's prestigious ISAGO Registration in Pakistan," said Syed Haris Raza, Vice President of Gerry's dnata. "As one of our core values, safety is integrated in all aspects of our operational, training and people management processes. We constantly monitor and measure our safety performance and engage our colleagues at all levels of the organization in continuous improvement. The achievement of the ISAGO Registration demonstrates our commitment and ability to meet the highest industry standards."

Gerry's Group and dnata, one of the world's largest air services providers, joined hands in 1993 to provide ground handling services at Karachi Airport. Since then, the joint venture has continually expanded its operations in the country and today serves 11 airline customers at seven Pakistani airports. Gerry's dnata's 2,500 dedicated employees assist over 4.5 million passengers and handle 130,000 tons of cargo annually.



### Universal Aviation Expands in Latin America with New Argentina Location

Universal Aviation, the worldwide ground support division of Universal Weather and Aviation, Inc. (Universal) has expanded its presence in Latin America, with the addition of Universal Aviation Argentina.

"Over the last few years, Argentina has become an increasingly popular destination for business aviation, particularly among operators who travel between Argentina, Brazil and Chile," said Greg Evans, Chairman, Universal. "We heard from our clients that there was a need for increased standards and service levels in the country. With the recent opening of Argentina to foreign companies, we were able to expand the Universal Aviation worldwide ground support network into Argentina to elevate standards there and better ensure the success of our clients' missions there."

## ► Upcoming Events

**June 1-3**  
**IATA 75th Annual General Meeting & World Air Transport Summit**  
Seoul, South Korea

**June 11-13**  
**GSE & Ramps-Ops Africa**  
Casablanca, Morocco

**June 16-19**  
**AAAE Annual Conference**  
Boston, MA

**June 17-19**  
**NATA Annual Meeting and Aviation Business Conference**  
Washington, DC

**June 25-27**  
**IATA Aviation Data Symposium**  
Athens, Greece

**July 9-11**  
**Canadian Business Aviation Association Convention & Exhibition**  
Calgary, Alberta, Canada

**July 22-28**  
**EAA AirVenture**  
Oshkosh, WI

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Universal Aviation Argentina is based in Buenos Aires at Ezeiza International Airport (SAEZ) and supports all airports in the Buenos Aires area and all outlying stations. Universal Aviation Argentina can coordinate support to operators at more than 35 additional airports in Argentina.

### NAS to Launch Ground Handling and Cargo Services in Mozambique

National Aviation Services (NAS), the fastest growing aviation services provider in the emerging markets will offer comprehensive ground handling and cargo services in Mozambique beginning July 2019. This covers ramp, passenger and engineering services and include check-in, boarding, ramp handling, maintenance, cleaning, as well as import and export cargo handling and storage, for scheduled as well as adhoc airlines at all airports in Mozambique.



Hassan El Houry, Group CEO of NAS said, "Airline traffic is growing steadily in Mozambique. Coupled with the developing oil and gas, and mining sectors, there is a huge demand for air transport related goods and services for both cargo and passenger operations. This requires heavy investment in the latest equipment, technologies and processes at the different airports in Mozambique, all of which NAS can provide easily. We look forward to utilizing our global experience and expertise to modernize operations and drive efficiency using the latest technologies and operational practices."

NAS is committed to investing \$50 million in Africa over the next three years. Mozambique is the first African country to benefit from this investment. With new infrastructure and fresh resources, equipment, technology and training, NAS will ensure the highest levels of quality and security for international airlines operating at the various airports in the country.

### GLS NAS Breaks Ground at Roberts International Airport for First of its Kind Cargo Terminal

The Global Logistics Services Inc. (GLS)



and National Aviation Services (NAS) joint venture company, GLS – NAS broke ground in Monrovia for a new 2,700 square meter cargo terminal at Roberts International Airport (RIA).

The Roberts Air Cargo Center (RACC), is aimed at improving RIA's air cargo operations to meet international standards and support export supply capacity in Liberia.

The size of the facility currently fulfills a 14-year forecasted baseline demand and can be further expanded up to 3,553 square meters. The current construction is expected to be completed by April 2020.

Part of a 25-year air cargo operations concession awarded to GLS by the Government of Liberia, GLS NAS is tasked with the design, finance, build, maintenance, operation and transfer (DFBMOT) of this new, modern cargo facility at RIA.

Axel Coulibaly, General Manager of GLS NAS said: "GLS NAS has been operating at RIA for over a year, during which our operational improvements have helped grow the airport's cargo handling capacity by almost 60 percent. With the new warehouse we will not only build capacity but also offer diverse solutions for a variety of industries dealing with perishables, fresh produce, livestock, pharmaceuticals and temperature sensitive cargo. We can also handle high value shipments that require special security. All of which will serve to attract more cargo airlines at the airport while focusing on safety and security."

The state-of-the-art warehouse will be one of its kind with extended racking for storage, temperature controlled cold storage, walk in freezers, dangerous goods storage, a vault, mail area and five loading docks that can be extended up to eight. The facility will also house a dedicated area for customs inspections and other

government agencies. A separate freighter stand will also be developed by the Liberia Airport Authority to accommodate freighter parking for larger aircrafts such as the Boeing 777F.

An off the grid facility, RACC will be self-sufficient in terms of power, water and sewage disposal. It also includes sustainable design features based on the principles of "Net Zero Emissions" and "Green Building" design.

### Universal Aviation Earns Two More IS-BAH Accreditations for Locations in Costa Rica

Two Universal Aviation Costa Rica locations – San Juan (MROC) and Liberia (MRLB) have become the latest Universal Aviation ground handling offices to earn accreditation under the International Standard for Business Aircraft Handling (IS-BAH) program. Universal Aviation, the worldwide ground support division of Universal Weather and Aviation, Inc., has more than 50 locations in more than 20 countries.



The two Costa Rica locations join Singapore (WSSL) and London Stansted (EGSS) as the third and fourth Universal Aviation locations to become IS-BAH accredited.

"IS-BAH accreditation is a mark of distinction in our industry and sends a message to our customers that we are committed to the highest levels of safety, systems, training, and security," said Delmarck Muir, Managing Director, Universal Aviation Costa Rica. "We are proud that both of our locations in Costa Rica earned accreditation and look forward to continuing to ensure our clients' mission success."

## ► PEOPLE

### Oman Aviation Services CEO Joins TIACA Board

Dr Khalfan Al Shueili, the Chief Executive Officer (CEO) of Oman





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Aviation Services (OAS), has been elected to the Board of The International Air Cargo Association (TIACA).

Air cargo in the Sultanate of Oman witnessed a significant growth during the period from 2013 to 2018, during which volumes almost doubled.

He previously spent more than seven years leading readiness operations for the Oman Airports Management Company during a period of expansion.

"TIACA brings together all sectors of the cargo supply chain and the addition of OAS means we now have more airport and ground handling expertise as part of our Board from this important growing region," said Sebastiaan Scholte, Chairman of TIACA and Chief Executive Officer (CEO) of Jan de Rijk Logistics.

"We look forward to working together as we look to develop the seminar program for our Executive Summit."

OAS signed a Memorandum of Understanding (MOU) with TIACA in January, pledging to work together with the association to promote air cargo growth in the Middle East.



**ECS Group's  
Schmolle Joins  
TIACA Board**

Bertrand Schmolle, the Chairman of ECS Group, has been elected to the Board of The International Air Cargo Association (TIACA).

Since joining ECS Group in 2000, Schmolle has made a huge contribution to positioning the company as a global market leader – as well as to the development of the General Sales and Service Agent (GSSA) sector and its activities.

ECS Group is the first GSSA to be represented on the TIACA Board.

"TIACA is the only organization representing all sectors of the supply chain and it is important that all voices are heard on the Board," said Sebastiaan Scholte, Chairman of TIACA and Chief Executive Officer (CEO) of Jan de Rijk Logistics.

"As we represent all of the air cargo supply chain, it is great to have such a

high profile GSSA on board."

Schmolle was elected at a TIACA Board meeting in Singapore as part of ongoing plans to grow the management team.

"An organization such as TIACA is the glue that holds us all together and allows us to move forward together despite our sometimes divergent interests," said Schmolle.

"As such, it is a real honor for me to have been appointed to the TIACA Board of Directors, with whom I share the desire to bring efficiency, modernization and unity to the industry."

**Flynn Named Head of Operational Learning at Menzies**

Menzies Aviation's Central HR team welcomed Elena Flynn as the Head of Operational Learning.

Flynn began her Menzies career in London Gatwick Airport, and has held a number of training-related roles in the nine years that she has worked for the company. Her most recent role was as Head of UK Training, working with the UK training and operational teams to implement the new Learning Management System, drive efficiencies in training delivery and improve compliance across the region.

Jo Harrison, VP People Development and Education, said: "Elena brings fantastic energy to the team and has a real passion for training and development. She has a wealth of knowledge and experience and will continue to work with and support the regions to ensure we give our employees the foundations to deliver excellence. I am sure you will join me in wishing Elena success in her new role."



**▶ NEW DEALS**

**New Contract Wins for Menzies Aviation Germany**

Menzies Aviation, a global aviation logistics specialist, announced three contract wins and renewals across its German network.

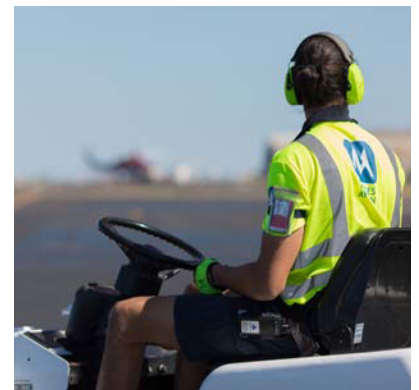
In Hamburg, Menzies will handle an additional two daily flights to Friedrichshafen for Sun-Air Scandinavia. Menzies will deliver ground handling services for the Danish regional airline, having already handled over 700 flights during the 2018/19 winter season. Menzies also provides ground handling to Sun-Air at Oslo and Gothenburg Airports, equating to 1,720 turns per year in total.

At Munich International Airport, Menzies has been awarded a contract with British Airways CityFlyer, which will see the delivery of passenger handling services for the airline's three daily services to London City Airport.

At Frankfurt Airport, Ukraine International Airlines will be increasing its service to Kiev Boryspil Airport to two flights per day during the summer season between March and October, with passenger handling services provided by Menzies.

Menzies Aviation Germany began operations in March 2017, providing passenger handling services at Hamburg, Munich, Frankfurt and Dusseldorf.

Jamie Ross, EVP EMEA said: "It is great to see continued expansion across our European operations, following recent contract wins in Stockholm, Copenhagen, Prague and Amsterdam. Our German team work tirelessly to deliver our customers the premium ground handling service they have come to expect from Menzies, and these contract wins with Sun-Air, BA CityFlyer and Ukraine International Airlines are a testament to their hard work and commitment."





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### AirBridgeCargo Airlines Selects Worldwide Flight Services to Accelerate Growth of Strategic Partnership with Liege Airport

AirBridgeCargo Airlines (ABC) has chosen Worldwide Flight Services (WFS) as its handling partner to accelerate its strategic partnership with Liege Airport ahead of the opening of the first phase of its new dedicated cargo area at the airport at the end of 2019.

The cooperation is in support of the strategic partnership signed between ABC's parent company, Volga-Dnepr Group, and Liege to significantly increase cooperation between the two companies, boosting AirBridgeCargo's volumes to and from the Belgian airport and placing Liege among the top five cargo airports in Europe by 2020.

This latest addition of Worldwide

Flight Services to the project comes as the partners progress with the construction phase of new warehouse premises to support ABC's fastgrowing freight volumes. This work will be divided into two phases for completion by the end of this year and mid-2020, respectively.

"Our close collaboration will facilitate the seamless and rapid building of the first 12,500 sq. m. of warehousing premises, which will be operational in November 2019. This will support our intention to increase ABC's current schedule of eight weekly frequencies from Liege to our target of 30 flights per week by 2020 in line with our customers' wishes and our vision of joint, intensified cooperation. This is a global project for AirBridgeCargo because, as well as representing a substantial enhancement of our cargo infrastructure in the region, it will allow us to increase our use of Liege

Airport to leverage major international trade flows, including for special cargo and extend our ability to meet the needs of global businesses and consumers," said Andrey Andreev, Vice President, Europe of AirBridgeCargo Airlines.

In addition to new warehouse facilities, Liege Airport is also constructing additional aircraft stands for wide-body planes with access to the enclosed cargo handling areas through an easily accessible ramp zone.

### gategroup Announces Completion of Change in Ownership

gategroup Holding AG, the world's largest provider of airline catering and retail on board, announces that RRJ Capital has completed the acquisition of all outstanding shares in gategroup from HNA Group. As a result, RRJ Capital is now the sole shareholder and Temasek remains



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invested in gategroup through a mandatory exchangeable bond.

gategroup's new Board of Directors will be chaired by Richard Ong, Founder and Chairman of RRJ Capital. New members appointed to the Board include Charles Ong (co-Chairman of RRJ Capital), Andreas Schmid, and Björn Bajan. Frederick W. Reid and Xavier Rossinyol maintain their current roles on the board.

### Ryanair Sun Chooses BGS to Service Charter Passengers at Chopin Airport

Baltic Ground Services (BGS), the only private operator of ground handling services at Chopin Airport in Warsaw (Poland), has signed a contract with Ryanair Sun for operations in the summer of 2019 (May – October). It includes complete passenger and baggage handling as well as all necessary services.



BGS will start the passenger services on April 26, 2019. The operator will service about 90 aircraft per month, which can take on board a total of approximately 17,000 passengers. BGS will employ an additional 20 ground handlers to serve this contract.

"I am delighted that we will be able to work with Ryanair Sun. This major airline had a choice between two state-owned companies and BGS, a private operator. The company chose us. It is a big responsibility, but I am sure that we will fulfill our tasks excellently since for many years we have had the highest punctuality

rates at Chopin Airport," said Tomasz Tabakiernik, operations director of Baltic Ground Services Polska.

BGS Polska has achieved high punctuality rates – on-time performance. At the Chopin airport, they have been 99.52 percent in ground handling and 99.97 percent in refueling last year. These indicators are closely watched by the airlines because they guarantee them high punctuality, which limits the potential losses resulting from delays.

"Thanks to the presence of BGS, the ground handling services at Okęcie are competitive. We are the only private company that is now present at Chopin airport. I am convinced that this results in higher quality of services both at our company and in others that serve passengers at this airport. This is a positive effect of competition, also in such a specific place as the airport," Tabakiernik added.



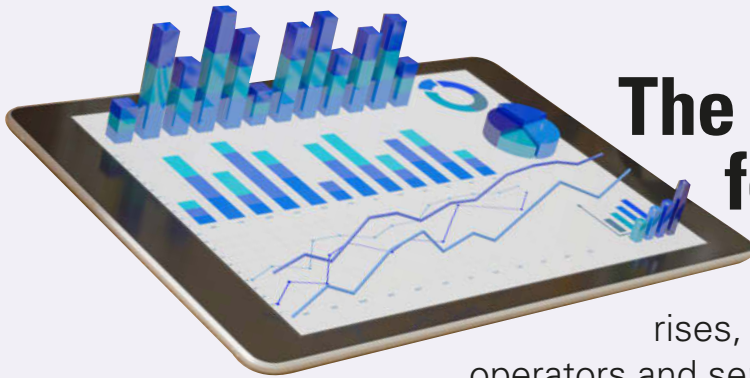
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# The Value of OTP Data for Ground Support

As the amount of useful data rises, its significance for ground support operators and services increases too.

By John Grant

OAG has been powering the growth and innovation of the air travel ecosystem since 1929. Every day OAG receives more than 120,000 changes to its schedules database and nearly 160,000 flight status updates.

The frequency and volume of data OAG receives from airlines and airports is growing at a significant rate and consequently the value of understanding and ingesting this information quickly and effectively is rising – no more so than within airline and airport operations and the ancillary services which serve the traveler.

Every flight status record (OAG handled over 58 million records last year) has multiple elements of data, tracking each flight from pushback through to “chocks on,” constantly being updated and refreshed as the flight reaches its final destination.

Punctuality, or on-time performance (OTP), matters more than ever and with value of this data and insight rising, OAG delves into the value this can add to ground support operators and services.

## What is On Time?

*It's true, every second counts.*

An airline departure or arrival that is considered

to be on time has a departure or arrival that occurs within 15 minutes of the scheduled time. The measurement and publication of data about on-time performance acts as a powerful key performance indicator (KPI) for airlines and airports, and it is also a potential service differentiator for marketing the product to air travelers.

## Real-Time Data Provides a 'Common Truth' For All

With so little room to maneuver – both in the skies above and on the ground below – airport, airlines and airside operators depend on real-time flight status data to deconstruct the departure process, analyze problems and optimize services in real-time.

It has become a central part of the operation for many airlines, airports and aviation related companies. Transport suppliers, catering companies, government agencies, hoteliers, cruise companies, information service providers, fueling companies and probably another 30 or 40 travel related activities rely on real-time flight status data to plan their resources on a day to day basis.

## When Accuracy and Speed Matter

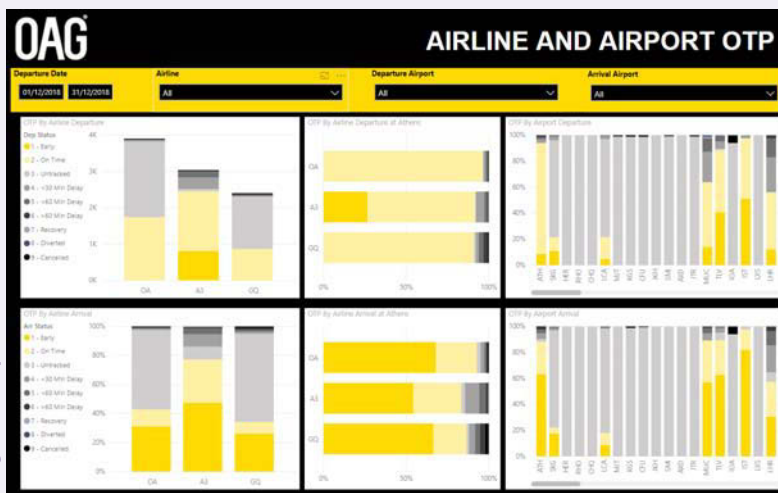
### Sequencing Arriving Aircraft

Airlines use flight status data to prioritize the sequencing of arriving aircraft from long-haul flights into their hub to ensure that those aircraft arriving late can be prioritized for arrival ahead of early arriving flights. Subsequent short-haul connecting services can then, on occasion, be held for connecting passengers rather than incurring a delay and re-accommodation cost to the airline.

### Resource Management

Flight status data is used increasingly by airport suppliers, especially those working directly on aircraft turnarounds. We have all seen catering trucks, bowlers and ramp staff waiting for a late aircraft to arrive on stand; for some, it can be the first sign of the flight arriving. However, multiply those wait times

Image courtesy of OAG



over a day and the cost can be very expensive.

Access to reliable real-time flight status information allows suppliers to allocate resources “just in time,” which can lead to significant cost savings for suppliers and customers alike.

### Fuel Cost Mitigation

Arriving early can be beneficial for many. But when the arriving airport has no spare gate capacity, such arrivals can result in frustration as aircraft hold and wait for a gate to become available.

Early insight into expected arrival times can both allow airlines to slow down their arrival to an on-time rather than early status, saving fuel burn en route. That early insight can also alert airports to the need to push-back aircraft earlier, releasing that valuable air bridge for the next arriving service.

Clear visibility of expected arrival times can make or break a whole day of flying for some airlines. Early awareness of late arriving aircraft can prevent sudden gate changes at major hub airports, which in turn avoids late reporting passengers and subsequent onward flight delays. A 20-minute flight delay can frequently be recovered when all stakeholders and ground handling parties are forewarned and able to plan and adjust resources accordingly.

### Maintenance and Equipment Efficiencies

Ground handling equipment is expensive, and it requires moments of high usage followed by occasionally lengthy periods of inactivity. Maximizing the use of such equipment and ensuring it is in the right place at the right time requires planning and effective communication every day. Reacting to flight delays can challenge such plans.

Advance notice of flight delays and gate changes can allow for ramp equipment and supporting services to both move in time and be used effectively throughout the day.

### Implications for the Service Value Chain

A severe thunderstorm at a major airport with many passengers connecting to several cruise ships departing in the next few hours potentially creates a significant disruption event.

If passengers miss their departing cruises, additional hotel accommodation may be required, onward transportation arranged or,

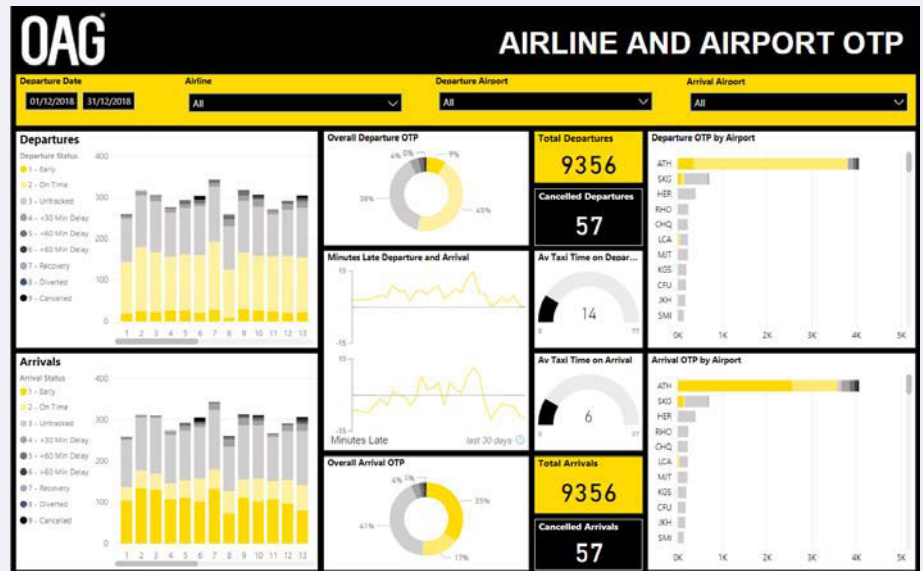


Image courtesy of OAG

indeed, depending on the length of delay the cruise company may merely delay departing. Flight status information in such context is hugely valuable to all parts of the product and service chain when such events occur. The insights provided allow for cost effective commercial decisions to be made that can literally save thousands of dollars a day for some companies.

### Early Decision Making and Better Operational Planning

In an industry with low operating margins for many, analyzing data and improving operational efficiency is crucial, and analyzing flight status on an ongoing basis is proving to be a margin game-changer.

By monitoring flight status performance, airports can identify those flights and connections that regularly challenge minimum connecting times and seek to either adjust gate allocations to improve connectivity, work with control authorities to improve passenger flows or in some cases seek support from airlines to adjust their schedules to meet the connection.

Larger airlines, airports and indeed ground

handling suppliers are increasingly using on-time performance dashboards that show the relative performance of a cluster of airports or airlines on a daily, weekly or monthly basis.

This enables effective disruption management but also provides accurate operational information to identify efficiency opportunities.

Such insights have proven to be essential for supply companies looking at potential RFP responses when seeking to understand the detail of the operation and the real (rather than scheduled) activity of a potential new client.

And of course, from a competitive perspective, the insights that such awareness can provide to an airport around its competitors, its own suppliers and airlines provides a remarkable basis for valuable constructive discussion around all aspects of the airport operation.

Understanding and using flight status data not only allows you to review performance and learn from it. Monitoring real-time data now means outcomes can be affected on the day, better decisions made, disruptions managed and, ultimately, better service delivery and cost efficiency. **GSW**



#### ▶ ABOUT THE AUTHOR:

**John Grant's** analysis has been featured in major publications including CNN, USA Today, BBC, the Financial Times, TIME and more. Grant captures and analyzes complex aviation data and industry trends to provide commentary on what's driving changes in the travel market. He's served as a featured speaker at major industry events including the CAPA Americas Aviation Summit, the CAPA World Aviation Summit, the Routes Online Strategy Summit and more. Grant previously managed and worked to enhance OAG's product portfolio and new product development.



# DAIRY

## ELITE LINE S



The industry veteran has had a remarkable impact on the GSE market and is preparing to pass the torch to the next generation of ground support leaders.

*By Josh Smith*

# DEWEY

2019 LIFETIME

# WORLDWIDE

## SERVICES

**D**ewey Kulzer knew he wanted to work in aviation. But it would have been hard to fathom just how many places working with ground support equipment would take him.

He has crisscrossed the United States, working in the South, the Midwest, the Pacific Coast, the East and even Alaska. He has worked internationally, assisting with GSE projects in the United Kingdom, South America and the Caribbean.

During his travels, Kulzer has gathered an abundance of experience and wisdom that he has tried to pass on to his team.

“Over my career, I have been fortunate to be able to manage the GSE departments for three airlines, building two of them from the ground

up,” Kulzer says. “Most of all, I have had the opportunity to help build people, help further their skills and opportunities to achieve more than I ever have. To me, the measure of a person’s success is not how much they are going to miss you, but how much you did to make the people that follow you so much more.”

Considering all the stations where he has worked, the number of GSE units he has developed, maintained and deployed, and the vast amount of people he has influenced, Kulzer’s impact on the ground support industry will be

felt for many years after his retirement later this fall.

That is why he has been selected by *Ground Support Worldwide* to receive the 2019 Lifetime Achievement award.

### Professional Rise

“As a kid, airplanes fascinated me,” Kulzer says. “I had to work around them.”

Although color-blindness prevented him from being an air traffic controller, Kulzer quickly became involved in aviation administration. After graduating from college, Kulzer began his aviation career as a counter agent for Mississippi Valley Airlines at Minneapolis-St. Paul Airport (MSP) in 1976.

He moved to Air Wisconsin, working first as a station manager and then in 1981 was promoted to manager of GSE.

“While at a manager meeting for Air Wisconsin, the president of the company came into the meeting and asked if anybody knew

# KULZER

## ACHIEVEMENT

anything about equipment. I had worked my way through high school as an auto mechanic,” Kulzer recalls. “I said I did and was immediately sent to Cleveland to fix their problems with a deicer. Then I was sent to the next problem station and the next. I never returned to the MSP station and was suddenly the manager of GSE.”

The new position required a relocation to Fort Wayne, Ind., where he built a GSE department from a group consisting of just himself to a core team of nine over the next four years. He connected with people he knew at Eastern Airlines and eventually met with their manager of GSE in MIA, Jack Wyle. Wyle gave Kulzer two weeks of his time, showing how a GSE department should be structured.

“Over the next two years, I must have spent six weeks with him and his department, learning the ropes,” Kulzer says.

Kulzer joined Aircal in 1985 as GSE supervisor at Mineta International Airport (SJC) in San Jose, Calif. He was in charge of Aircal’s GSE at SJC and all stations to the north.

“I opened [Anchorage International Airport] ANC for them in 1987 – little realizing how large a part of my life Alaska would later be,” Kulzer says.

When American Airlines acquired Aircal in 1988, Kulzer was relocated to the airline’s headquarters at Dallas/Fort Worth Airport (DFW) to serve as a GSE analyst. He later became a GSE engineer before being promoted to manager of GSE for American’s worldwide operation in 1990.

In 2000, Kulzer opened a specialty department for American Airlines called “GSE Technical Support” to develop electric and other alternative fuel GSE aimed at supporting environmentally sensitive locations like California.

“Shortly after Sept. 11, 2001, my complete small group was part of the 20,000 employees laid off by AA,” Kulzer says, reflecting on a difficult time for the aviation industry.

He spent the next year performing consulting work for the Environmental Protection Association (EPA) and Federal Aviation Administration (FAA) before joining Elite Line Services (ELS) in October 2002.

“I’ve had a wife who’s foolish enough to follow me,” Kulzer says with a smile. “And it’s been an endless adventure. And I’ve been very fortunate because the adventures have been so unique.”

## ELS

Kulzer began his tenure at Daifuku Elite Line Services as the site manager for Seattle-Tacoma International Airport (SEA), overseeing the airport’s terminal expansion program, known as STEP. A year later, he was promoted to East regional manager.

In August of 2004, ELS accepted a contract with Alaska Airlines to build a GSE department, as well as maintain and manage the airline’s GSE maintenance across all its stations.

“I was promoted to project director and agreed to relocate to ANC to build the program for 21 locations in Alaska, SEA, PDX, all of their lower 48 sites and Mexico,” Kulzer recalls.

For the first four years of the five-year contract, Kulzer acted as Alaska’s GSE manager, reporting to an Alaska Airlines’ director.

“In 2006, GSE maintenance support for USAir at [Ronald Regan Washington National Airport] DCA was added to my division, followed by maintenance support for baggage/jetbridge at the international terminal at [San Francisco International Airport] SFO, and GSE maintenance support for [Northwest Airlines] NWA in SEA in 2008. I was then promoted to regional director.

“In 2010, at the end of the five years, I relocated back to Texas, managing the operations from there.”

In 2014, Kulzer began GSE support for Dayton International Airport (DAY). What’s more, Detroit Metropolitan Airport (DTW) for Delta Airlines was added along with Raleigh-Durham International Airport (RDU) for American Airlines.

Finally, in 2016, he moved into the role of senior operations director for GSE at Elite Line Services.

“This is where I will be finishing out my career,” Kulzer says.

## Projects and Milestones

While relocating his family frequently came with challenges, Kulzer found himself working on intriguing projects.

While with American Airlines, Kulzer opened a station at London Heathrow Airport (LHR) and also converted the Eastern Airlines stations in the Caribbean and South America to American Airlines.

“When AA purchased the London routes from TWA, I was the only GSE person sent to LHR to make it happen,” Kulzer recalls. “I had



to learn to think like the British mechanics. I had to get them to believe in me.”

He was able to overcome cultural challenges and got his British counterparts to buy-in to the plan. And he convinced their families to go along with it too.

“It was just learning. It was the first time I had been in an international situation, learning how to win an international team,” Kulzer says.

The GSE expert was a part of large-scale projects domestically as well.

Kulzer was instrumental in developing an eGSE program for American Airlines that won the American Lung Association’s Breath of Life Award. It was also recognized by the Department of Energy for alternative fuel development.

Kulzer is most proud of the work he has done on behalf of ELS for Alaska Airlines.

“How often do you get the opportunity to take your experience and build a complete GSE program for a major carrier? I had that with Alaska Airlines,” Kulzer says. “The partnership

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we built with Alaska is now in its 15th year and has never been challenged. It was built with transparency and trust on both sides and is the same today.”

He appreciates the airline treating ELS as a full partner, adding a 15-year partnership that has never been bid tells the story of this successful partnership.

## Influential and Supportive People

When Kulzer joined the aviation industry, stalwarts like Bob Six, Frank Borman and Bob Crandall were “building empires.”

“I was fortunate to sit in on a few Frank Borman staff meetings,” Kuzler points out. “Bob Crandall drove American from a dying carrier to the largest in the world. It was a time of growing, conquering and making the impossible happen. It was beyond exciting.”

Kulzer thrived on the excitement and sought

to learn as much as he could about ground support and the aviation industry, as a whole.

“At American Airlines, I was very fortunate to have two outstanding mentors that believed in me and truly taught me,” Kulzer says. “Den- nis McKaige and Bob Baker took the time and invested in me. I have been trying to pay that back by investing in others ever since.”

McKaige and Baker weren’t the only ones supporting Kulzer. He is quick to point out his that wife Lois has always stood beside him, and his children DJ, Sara and Stephanie were open to moving around the country.

“We’ve been rolling stones,” Kulzer says. “It started with having a fantastic woman at my side that has supported and followed me as I dragged our family from one side of the country to the other. Without that, none of the rest would have been possible.”

Kulzer emphasizes Lois’ support was critical to his professional success, providing support

at home and standing alongside him when decisions to relocate were made.

“I’ve been lucky to have a son that drank the Kool-Aid, listened to the stories and wanted to follow me into GSE and make a difference,” Kulzer adds.

DJ Kulzer, who now serves as manager of GSE programs at ELS, says his family moved approximately 15 times before he was in the third grade. But seeing his father’s work up close prompted him to get involved in the industry.

“I grew up learning the equipment by running around and playing on it,” he points out. “Then watching him build the different divisions and watching the airlines and the way they’ve grown has been fun.”

## Personal Management, Not Personnel Management

Kulzer believes that with the rise of “manage-

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ment” in the industry, leadership fell by the way side.

“The belief became that a good manager could manage anything; it was all about the numbers,” he says. “We lost the concept of leadership. People don’t want managers, they want leaders. They want someone that they can believe in and follow.

“Your people are the ones that make it happen. When you forget about managing your people and start leading them – realizing that they are what will make the success happen – then anything is possible.”

Kulzer says if someone provides sincere leadership, honesty and integrity, then management becomes easy.

“It has taken me a large part of my career to move on from being a good manager to, I hope, a good leader,” Kulzer says. “My people deserved good leadership, and I hope I have provided that.”

“I have learned that I must manage myself before I would ever effectively lead and manage others,” Kulzer says.

Effectively leading others begins with efficient operations. To guarantee that, Kulzer says to be mindful of the parameters of the project.

“The key is realizing that your budget needs to be your business plan and something that you utilize every month – not just once a year,” Kulzer says. “Combined with a focused staff, the rest is easy.”

He explains the staff needs to be part of the plan, the action and the results because people want to believe they have a purpose and know

they make a difference.

“Our only asset is people,” Kulzer says. “If it was a machine, you would maintain it. People are no different.”

Throughout his career, Kulzer has strived to keep his team happy and working at capacity. Between Christmas parties, fun awards, contests, appreciation dinners and fishing trips, he has sought ways to make his employees feel valued.

“He likes to share his knowledge and experience. He doesn’t withhold that,” ELS executive vice president Gary Zarycki says.

“He’s the best team-builder I’ve ever met,” he continues. “He takes an active interest in the folks who work for him. He’s interested in, not only their professional development, but also their personal development.”

Zarycki points out that the time and attention Kulzer gives to his people and projects has led to a lot of success.

“When he goes to visit a site, he’s there for the whole week. He’s investing his time to build a team, and that team supports him 100 percent,” he says. “They’re probably the most loyal bunch you’d ever meet because he’s done right by them along the way.”

## Career Reflections

“I have been extremely blessed through my career. It’s been filled with excitement, adventure and, at times, some terror,” Kulzer says.

He recalls the early portion of his career when he was still getting established. He attended a meeting of the SAE GSE group in

Orlando, listening to the “old-timers of the industry” share stories about drawing outlines in chalk on the manufacturer’s shop floor to show what was required of container loaders for the first wide-body aircraft.

“I asked my wife just after that meeting if she thought I would ever be one of them,” Kuzler remembers. “Twenty-five years later, at another meeting, again in MCO, she reminded me of the question I had once posed to her and pointed out that I now was drawing out new machines on the white board at the manufacturers.”

“He understands the industry probably better than anyone I’ve ever met,” Zarycki says, adding Kulzer really understands total cost of ownership (TCO). “It’s more about ‘Hey, you understand the industry. What do we need to do to improve?’”

There have been challenges along the way, however.

GSE can be considered a necessary evil, Kulzer notes. So, getting the resources to do his job could lead to a lot of follow-up questions. He says finance departments would argue for repairs or less expensive solutions.

Getting recognition for his people was often a challenge too.

“Often, the people directly involved with the aircraft were recognized, but they forget the people back at the shop that gave them the tools to do it,” Kulzer says. “They forget that there had to be someone out there at 3 a.m. to get the ice off, get the equipment running and get the deicers ready. I believe that was probably the largest frustration and challenge.”



Photos courtesy of Dewey Kulzer

But Kulzer didn't let challenges defeat him.

"You overcome it by not giving up. Not just accepting it," he says. "I have a very hard time giving up."

Challenges remain today – most notably attracting the next generation of workers to maintenance.

"Over the last few years, finding good people is getting harder and harder. We are competing with the auto dealers, auto shops, fleet owners, etc., for a continually scarce resource," he says.

The world changes and aviation is no exception.

When he started, Kulzer says airlines had large GSE design engineering departments. Now they have a few just to check the manufacturers.

Also, maintenance has gone from "running it from the seat of your pants," to utilizing data tracking, productivity and utilizing outside organizations to perform the maintenance more effectively and efficiently.

"This is a balance between insourcing and outsourcing," Kulzer notes. "Both can be efficient."

Kulzer is very proud of the work ELS has done in terms of outsourced GSE maintenance.

"I once knew a guy that built a company manufacturing hardware. He wanted to build the best nuts and bolts in the industry. He did not want to build buildings or fly airplanes. His world was building the best hardware," Kulzer says. "That's what we, at ELS, are. We are focused on providing the best GSE maintenance support in the industry."

He has attempted to pass that pride in his work on to others and is excited for people like his successor Tyler Elgin to take what he's established and build on it further.

## A Lasting Impression

"I don't know anybody in our industry that's had a greater impact than Dewey," Zarycki says earnestly. "It's been an honor and a privilege to work side-by-side with him."

Plenty has changed from the days when Kulzer began working on Beach 99s and DC3s with leftover tugs from World War II to today's world of high-tech and electric GSE.

But throughout his career, working with planes never lost its excitement.

Kulzer says working on vehicles and other GSE allowed him to lead a great group of people "while still being able to play with airplanes."

"When a kid looks up at the sky to watch an airplane fly overhead, he never imagines the many pieces of equipment and people that made that flight possible," Kulzer states. "The airport does not move without ground equipment. The airplane won't get into the air

without us. Yet, it is one of the least recognized groups.

"Knowing all the men and women who make each and every flight possible is now what I see when I watch my grandkids looking in awe at that plane overhead." **GSW**



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## Air Canada Looks to Modernize GSE with Construction of New Facility

Air Canada's new GSE facility at Edmonton International Airport aims to modernize and streamline the airline's cargo and GSE operations – all under one roof.

By Walker Jaroch

**M**odern air cargo requires modern facilities and the space needed to house the ground support equipment (GSE) that makes it all possible. The construction of such a facility is no small task for either airline nor airport, but it's a necessity that both Air Canada and the Edmonton International Airport (EIA) have been undertaking since the fall of last year.

Breaking ground in October of 2018, Air Canada is bringing a new facility to Edmonton International Airport for the housing and maintenance of its cargo and ground support equipment. With up to 42 daily flights from EIA, Air Canada's new facility aims to streamline and consolidate the air-

line's operations under one roof.

"Air Canada has served Edmonton for more than 80 years and Edmonton is an important part of Air Canada's global network," says Angela Mah, spokesperson for the airline. "Two of Air Canada's important operations teams at Edmonton, cargo as well as ground-equipment support, were in separate facilities which were due to be upgraded. A business decision was made to have a new facility constructed for both ground support equipment service and cargo teams at Edmonton International Airport. This enables us to enhance our operational capabilities for both operations in a new, modern facility."

Of the 50,000 square foot facility, 30,000 square feet will be utilized by Air Canada's GSE team, with the remaining space occupied by Air Canada Cargo. Mah says the facility will offer the latest in technology for the upkeep of Air Canada's GSE fleet and modern facilities for their cargo side, enabling the integration of technology, infrastructure and enhanced space that allows for the optimal flow of goods.

"A lot of planning and thought has gone into this project to ensure that it meets our objectives. For instance, we wanted to ensure that there was sufficient space to efficiently maintain our fleet of 167 airport vehicles that support our operations at Edmonton International Airport and ensure a learning area was included. These vehicles include pushback tugs, bag tractors, baggage carts, container dollies, vans and more," Mah says. "Our electricians will have a dedicated area

to conduct specialized electrical repairs, painting will be able to be done year-round, and importantly, training facilities including classrooms are present to enable our technicians to remain current with the latest technology and processes."

"The facility has been designed with appropriate groundside and airside access to ensure the seamless collection, receipt, sortation, and handling of cargo," adds Mammen Tharakan, EIA's director, e-commerce, cargo and aviation real estate. "The construction of this new facility is also consistent with the airport's long-term strategy of transitioning our key cargo operators to the highly connected and purpose-built Cargo Village."

"The new facility enables modern, upgraded technology infrastructure and enhanced space usage. This will help efficiently streamline the movement of goods

The new facility enables modern, upgraded technology infrastructure and enhanced space usage.

that are shipped via Air Canada Cargo, which handled 3.2 million kilograms of goods last year, comprising pharmaceuticals, mail, art, plus oil and gas industry equipment and much more through the Edmonton cargo facility," continues Mah. "And as our cargo business continues to grow, a new facility will help enhance the experience for our customers and our staff alike. This is good for us and our many customers here, but also for the Edmonton Airport Author-

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ity who has made the development of the cargo-handling capacity at the airport a priority which continues to contribute to the overall economy of this region.”

With construction currently underway, Air Canada aims for the facility to be open and operational in September 2019. Air Canada is investing \$19 million (Cdn) into the facility over the term of a 15-year lease at EIA. The Terracap Group is constructing the facility and comes only six years after the completion of their first airside cargo facility in 2013, notes Tharakan.

“Air Canada Cargo are a significant partner and we recognize the importance of this strategic location to their business efficiency. The location offers easy access to major roadways, close proximity to Customs (CBSA), access to the apron and other cargo warehouses for cargo transfers,” says Tharakan. “The investment by



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our key airline partners like Air Canada in the development of EIA's Cargo Village is a demonstration of confidence in the market and our strengthening partnership."

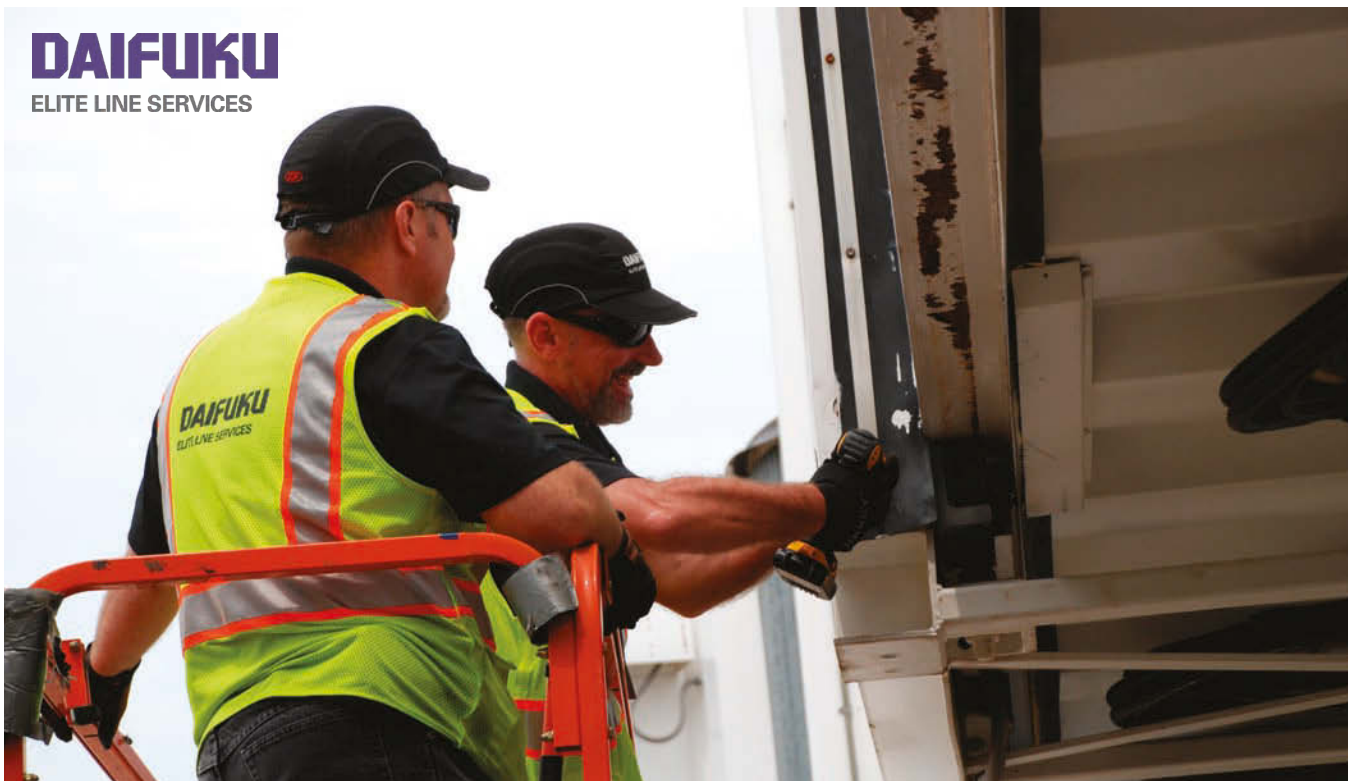
With Air Canada's investment, Tharakan said that the footprint of total warehousing, distribution and logistics space operational at EIA will grow to just under

900,000 square feet – which is a significant contributor to the economic development of the region.

The facility will employ cargo specialists and ground equipment services mechanics.

"Technicians and professionals will work in the facility to support Air Canada's airport and cargo operations at Edmonton

International Airport," says Mah. "Together with our employees, we're looking forward to the new facility, and we also thank the entire Edmonton Airports team for their ongoing support of our operations and services at Alberta's capital city." **GSW**



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# The Pitfalls and Potential of Ground Handling in Africa

With ground handling forecast to grow on the continent, Africa faces both unique growing pains and opportunities as the region's air transport industry booms.

By Mario Pierobon

**T**he aircraft ground handling sector in Africa is geared to grow substantially as a result of the forecast demand for air transport, thereby enhancing intra-African and international business, trade and tourism. Indeed there are significant opportunities – but also threats – in doing business in the aircraft ground handling environment throughout the African region.

“Data from major aircraft manufacturers suggest that fleet expansion and replacement is paramount to satisfy the demand for air travel. Hence forecasted demand will not only increase the number of passengers but this growth will also drive airport infrastructure expansion. This prospect may allow Africa to enhance and expand its limited connectivity. More importantly, the opportunity for ground handling companies will increase in scope. Ground handling companies will have to increase their service offerings to accommodate the increased demand of the carriage of passengers, baggage and cargo,” says Veas Lochan, chief operating officer at Airlines Association of Southern Africa (AASA).

“One of the major threats that ground handlers face in Africa is that the concession to operate at airports is provided by the Airport Authority, and it is for a set period. This impacts the long-term investments in ground support equipment (GSE) as it is then limited to the concession period granted.

In South Africa, ground handling contracts are often granted on an open tender basis. The Airport Authority sets the standards required and potential ground handling companies compete/bid for the right to operate at airports. In some jurisdictions, only the Airport Authority is permitted to provide ground handling services. In most cases this tends to be non-competitive.”

“Ground handling used to be provided by African airlines at their respective home bases. However, Africa generally follows the liberalization trends of aircraft ground handling. As Africa represents only 2.5 percent of the world air transport market, ground handling service providers surely continue to assess business opportunities. Indeed the ‘big names’ have more recently begun to operate at relatively big airports in the region,” says Gaousou Konate, consulting director technical and operations at African Airlines Association (AFRAA). “Business opportunities exist in the relative big airports, and the challenge of being profitable even for duopoly handlers are real at several international airports as their markets are just tiny. Generally, big African carriers handle their flights at their home bases and provide their services to foreign carriers. Four out of the top five air carriers face fierce competition for ground handling business at home either with several local companies or the international handlers.”



According to Lennia Bikoko, quality assurance and safety officer at Lilongwe Handling Company, while global and, more specifically, African flying numbers are on the increase (and so are cargo numbers), Africa has some distinctive threats including a poor safety record and security issues, the lack of adequate resources and infrastructure, a lack of full enforcement of regulations by governments, high airport taxes and fees

and comparatively low traffic levels.

“Some major issues include the fact that many accidents and incidents occur due to inconsistency in complying with or conforming to acceptable safety standards and practices, hence a need to enhance levels of safety. Moreover, African governments often deny to give rights to foreign operators on domestic route operations in the name of protecting their flag carrier,” she says.

Africa is a part of the world where the IATA Safety Audit for Ground Operations (ISAGO) and the IATA Ground Operations Manual (IGOM) are particularly appealing to ground handling service providers (GHSP).

“Companies within the African Region are slowly adopting the IGOM procedures because many were more on the Airport Handling Manual (AHM). However, most are now ISAGO registered due to the fact

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that the ISAGO registration assures safety of a particular provider and also that many airlines prefer to be handled by GHSPs that are ISAGO registered,” says Bikoko. “Both ISAGO and IGOM are very appealing to GHSPs operating in Africa. The only drawback to the ISAGO program is the actual cost of the audit. However, to be able to say that a small GHSP meets the same standards as those GHSPs at the mega-airports in the world is very appealing. IATA’s goal for the IGOM is that all airlines and GHSPs globally would adopt or implement the processes and procedures outlined in it. The IGOM is especially appealing for those GHSPs that are handling multiple airlines. The current practice is that GHSPs must operate according to each customer airline’s procedures. So, if a GHSP handles 10 airlines, each of the 10 airlines could have their own process or procedure for the same requirement – this

is cumbersome for the GHSP. However, if these 10 airlines would adopt or implement the IGOM, the GHSP would only have to implement one procedure for all the airlines.”

Konate highlights that currently there are 44 African airlines in the IATA Operational Safety Audit (IOSA) registry which seek

ISAGO registered handlers, preferably for their ground operations around the continent.

“Therefore, the number of Africa-based ground handling companies is increasing in the ISAGO registry. At airports where handlers are competing for ground handling business, at least one African-based company is in the ISAGO registry. Even on the small market of Ouagadougou, Burkina Faso, RACGAE, though a monopoly, is in the ISAGO registry to ensure that its services meet the international standards,” he says.

“ISAGO and IGOM should be fully adopted in Africa as the benefit of improved safety oversight and improved quality standards is essential for safe operations in the aviation industry. ISAGO also contributes to the efficient oversight of the civil aviation authorities. IGOM is an essential and valuable tool for every ground handling company as it is the most authoritative source for the latest industry approved standards harmonizing ground handling processes,” says Lochan.

The GSE supply chain in Africa is characterized by a divide between the regional areas and the international airports.

“The supply chain is riddled with challenges. This is because, as a continent, there are almost no major GSE manufacturers, so GSE is mostly ordered from the West. Once the GSE is ready, it must then be shipped to the nearest port and then, depending on the country, the GSE must be transported mostly by road since very few countries have a proper functioning cargo rail system and even the state of some roads makes transportation even more challenging. So needless to say, it can be months and months before the GSE moves from the manufacturer to the customer,” says Bikoko.



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“The GSE supply chain is generally normal at international airports. The low utilization resulting from the limited traffic is the challenge. Pooling on GSE with the participation of the manufacturers could rationalize the GSE availability costs at airports while traffic grows to critical mass levels,” says Konate.

At most of the main airports in Africa, the aircraft ground handling industry has witnessed some deregulation, hence the participation of several international players. In smaller markets, the market is quite tightly regulated, i.e. the sole providers or the couple of GHSPs may have pre-validated fees by the local CAA.

“The ground handling sector is a closed industry because of the environment they operate in, which is highly regulated and very capital intensive. In certain countries, there is a traction of separation between airport management and ground service provision. At the end of the day, airlines are paying the ground handlers for services rendered as per their agreement but the operating procedures and standards are largely influenced by the Airport Authority,” says Lochan.

“Benchmarking of taxes, fees and charges, places Africa on the high ends. Private Public Partnerships are more and more involved in airport infrastructure development projects, and private partners want a quick return on investment based un-stability risks in certain African states. Furthermore, state taxes on concessions which are recovered on relatively small traffic. Hence, the basic costs of doing business are often high, and they affect taxes, fees and charges to air carriers operating to and from African airports. The combination of these high costs are included in the high fares public must pay to travel by air,” says Konate.

“Productivity gains, at airline levels, at GHSP levels, at Air Navigation Service Providers levels, airport operators, fewer taxes from states and reasonable ROI set by economic regulation will bring fares at affordable levels and increase the pace of the traffic growth for the benefits of all stakeholders.” **GSW**



#### ▶ ABOUT THE AUTHOR:

Mario Pierobon is a safety management consultant and content producer. He currently is working on a research project investigating aircraft ground handling safety. You may reach him at

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# The Do's and Don'ts of Deicing

Airports from Portland to Memphis find ways to tackle the environmental challenges of deicing operations.

By Walker Jaroch

It's snowing, blowing and the deicing trucks are hard at work spraying planes to get them out on time. But as the aircraft deicing fluid (ADF) slides off the aircraft's wings and down into the storm drain, where does it go and what happens to it?

"This is my 20th year in the industry and for

the first half of my career I sprayed hundreds of gallons of ADF onto aircraft and I watched it go into the storm drain, and for an applier, it's always in the back of your mind: where's all that fluid going to?" says Adam Thurlow, Site Operations Manager for Inland Technologies at Portland International Jetport (PWM).

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While non-toxic, propylene glycol – the main ingredient in ADF – does pose an environmental threat.

“By design, glycol absorbs moisture which is the same as absorbing oxygen. It has a very high biological oxygen demand. When propylene glycol enters an aquatic environment, it acts as a food source for some microbes so it eventually will break down into harmless molecules. This is tolerable in small quantities. A problem arises with higher concentrations of propylene glycol because the microbes also use oxygen from the water to digest the food source. This increase in Biological Oxygen Demand can starve other aquatic life of oxygen, thus affecting the environment,” Thurlow explains.

For years, spent ADF had been discharged into the Fore River, Paul Bradbury, Airport Director of the Portland International Jetport, says.

“Historically, ADF at airports has been directly discharged into local tributaries or estuaries, which are tidal areas if you’re right on the coastline like Portland. So to that point, we were discharging a fairly small amount of propylene glycol relative to the size of the estuary. None the less, our Maine Department of Environmental Protection wanted a long-term solution,” says Bradbury.

The resulting solution turned PWM into the first on-airport facility in the US to capture, recycle and remanufacture an FAA approved ADF in a closed loop system. Inland Technologies commissioned the facility in 2016 to start production of Type I

ADF from 100 percent recycled glycol.

The road to becoming the US first began in 2010, off the back of a planned terminal expansion at PWM.

“We were working on the design for terminal expansion,” Bradbury says. “But part of the permitting for that project included environmental permits with our Maine



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Department of Environmental Protection (MDEP). The MDEP wanted a solution to the discharge of propylene glycol ADF at PWM.

“We issued a competitive RFP and Inland was successful on that, and we worked with them to do a first round. They would capture, then use what they call ‘concentrators’ to get it back to a 50 percent glycol mix.”

PWM issued a contract for ADF recycling

to Inland in January of 2010. Construction on the deicing facility to house the ADF recycling and collection equipment began in the spring of 2010. The facility went live in October of that year, and could take spent ADF, put it through Inland’s concentrator, removing water and returning a 50 percent glycol/water mix.

PWM collects glycol through both passive and active means. Passively, the airport has a central deicing pad that’s pitched to allow spent ADF to flow into a trench drain, leading to two underground storage tanks able to hold a combined 500,000 gallons. Actively, Inland Technologies uses its patented Glyvac ADF glycol recovery vehicle owned by PWM for vacuuming up puddles of ADF.

Quickly, though, the airport recognized the capturing and processing of the spent ADF was not a cheap endeavor when compared to airports that were still directly discharging ADF.

“We did learn and know coming right out that we had a very expensive process relative to other options just with the 50 percent product. Right out of the gate, we put ourselves at a competitive disadvantage versus our peers in processing glycol, in terms of the cost,” Bradbury says.

“We were approached by the airport to find some cost-saving initiatives to help with the overall cost savings here at the jetport. A lot of that had to do with the marketability and the cost that Portland was



Photo courtesy of Inland Technologies

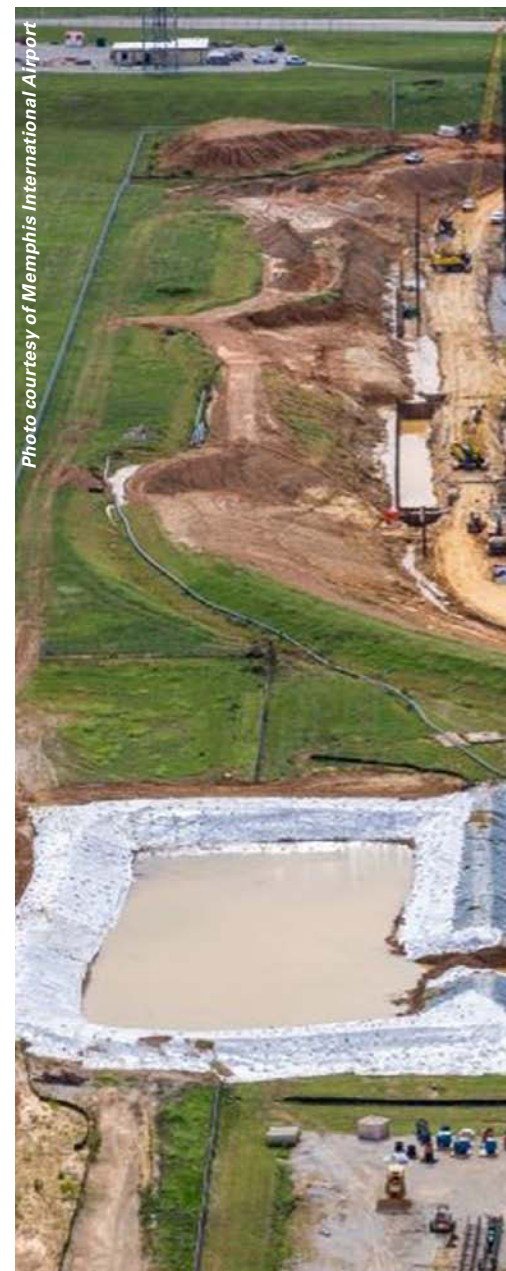


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having to pay compared to other airports in the area that weren't affected by environmental or regulatory situations," Thurlow says. "Knowing that all those costs eventually trickle down to the flying public, we looked collectively to do something so that wouldn't happen."

Thus, PWM and Inland Technologies turned to the next step - full distillation.

"We brought in distillation to take the recycling process further than we were initially intending to do here in Portland,"

Thurlow says. "So, Portland became the first airport to close the loop on deicing. We contain it, we clean it up, we recycle it right back to pure industrial grade glycol, then remanufacture it into Type I deicing fluid for reapplication onto an airplane."

"...which was really an amazing point for us," Bradbury adds. "And we remain the only producer of Type I SAE approved ADF from recycled effluent."

The ability to recycle glycol to industrial strength also allows PWM to resell it to any market that uses propylene glycol.

Today, PWM brings in spent ADF and glycol from outside sources. Bradbury and Thurlow count among their sources Bradley International Airport, Newark Liberty International Airport, LaGuardia Airport, Washington Dulles International Airport, Ronald Reagan Washington National Airport, Baltimore Washington International,

Cleveland Hopkins International Airport and Pittsburgh International Airport.

Bradbury estimates PWM will bring in 550,000 gallons of offsite fluid to process on top of the 600,000 gallons of their own fluid this year. Since 2010, PWM has recycled approximately 6.5 million gallons of fluid and reclaimed 1 million gallons of pure glycol, with 47 percent of that coming from outside sources.

Though there's a cost to operate the recycling facility, the environmental credits PWM receives along with what they make selling the recycled glycol offsets that cost. Bradbury said they've been able to offset roughly \$58,000 so far this season. He estimates the total deicing recovery revenues to the PWM will be \$135,000 by season close which offsets \$763,980 in estimated recycling expense.

The ultimate goal for PWM is what Brad-

An aerial view of the construction currently underway for Memphis International Airport's central deicing facility.



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bury calls “business nirvana” – a level near complete offset. Both Bradbury and Thurlow say it’s an achievable goal.

“I believe it is achievable. It just takes a little time to get there. It’s a new industry, new in Portland, but we’ve cut into the operating cost quite a bit in Portland and we’re continuing to grow and move forward,” Thurlow says.

### The Memphis Way

Fourteen hundred miles away, the Memphis International Airport is currently underway with phase one of a three-phase project to construct a new central deicing facility (CDF).

“We’re being driven by an environmental stewardship, wanting to do the right thing and do a better job of collecting spent aircraft deicing fluid and following best practices,” explains Terry Blue, Memphis International Airport’s Vice President of Operations.

The construction of the deicing pad is being spurred, in part, by the expiration of the airport’s National Pollutant Discharge Elimination System (NPDES) permit issued by the Tennessee Department of Environment and Conservation (TDEC).

“The airport has always been in compliance with that permit. However, that permit expired at the end of 2018 and it carries forward until a new one is issued. Our application for a new one is in to TDEC right now and through collaborative communication with them for a few years, we knew that the bar was going to be raised. So, this is industry best practice and the airport authority has always strived to be good stewards of the environment and this is proof positive of that,” elaborates Blue.

MEM’s pad will collect spent ADF through a passive collection, with the spent fluid being collected in trench drains and



fed into the sanitary sewer for processing by the city’s publicly owned treatment works.

“The glycol will drip off the wings of the aircraft into the trench drains and gravity fed into the sanitary sewer,” explains Blue.

As it is currently, airlines at MEM deice at their gates around the terminal building, with glycol being collected by vacuum trucks. The CDF will consolidate MEM’s deicing operations and bring new technology to the process.

“The CDF is being designed with a glycol supply system, with load stations in the vehicle safety zones between the bays so trucks, after they have spent their load, do not have to drive across taxiways back to a central location, they can reload at the vicinity of the bay,” explains Blue. “The facility will also have electronic message boards and IP addressable taxiway centerline lights that will provide visual guidance for safe and efficient communications. So, the lighting and signage will lead pilots out of and into the bays, eliminating the need for marshallers on the ground. And deicing communications will be conveyed over the message boards, as well.”

The CDF will comprise of two deicing pads, for a total of 12 bays, Blue says, 11 of which are sized for Aircraft Design Group 5 – a Boeing 747 or Boeing 777 – with the other bay designed for a Boeing 747 800 series freighter in mind. In total, the size of the CDF will be roughly 3,260,000 square feet, or 56.5 football fields.

Blue says the CDF will open in phases, with phase one opening the winter of 2020.

“One of the pads, or six bays, should open

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Photo courtesy of Safe Drain

▲ **During this deicing operation, Safe Drain (bottom right) stopped 100 percent of the deicing fluid from entering the storm water system allowing the plane to be deiced where it was and not moving it to a deicing operation area saving time and fuel.**

for the winter of 2020 into 2021. The entire program aims to be complete for the winter of 2022 into 2023," says Blue. "Safety is paramount always, as is environmental conservation, this pad has been designed with both of those considerations in mind."

### A Safe Alternative

For airports without the funds or real estate to construct state of the art deicing pads or recycling centers, there remain effective ways to capture and collect spent ADF; such as storm drain blockers like those manufactured by Safe Drain.

"Deicing, that's one of the no-brainers for us," says John Deming, Founder and CEO of Safe Drain. "We talked to an airport recently at a trade show and they said, 'you're kidding me, right?' And I said, 'what do you mean?' They said, 'I could have done this? I just spent 1 million dollars on a deicing pad.'"

"Here's the thing, when you build a deicing pad, you've got to take the planes to the deicing pad. If you put Safe Drains on your whole ramp, you could deice the plane wherever you wanted," continues Deming. "Sure, it's contained, but you could do the same thing with Safe Drain and a vacuum truck, and most airports have vacuum trucks or sweepers. Just vacuum up the glycol."

Considering themselves an environmental company, Safe Drain works by effectively sealing off a storm drain with the turn of a key to keep pollutants contained at the source.

"It happens in seconds. The key is operated through the grate, so there's no reason to lift the grate. You can close that valve in three seconds. Even if you had a spill emergency response wise... you can have one key that closes that drain off and gets you 100 percent spill containment in seconds," Deming says.

Originally getting into the aviation industry by containing fuel spills, deicing became the logical next step, helping airports on the east coast contain their ADF - and then the world.

"We got a job in Europe many years ago and what I didn't realize was that there was so much glycol going down the storm drain

that it was getting into a nearby lake below and for however long the locals had been ice skating on this rink, one year it never froze. They followed it back up to the airport and realized it was the deicing fluid. So, they immediately ordered over 300 units to make sure the deicing fluid never went down the drain again," Deming says.

Deming says each Safe Drain is custom made for the storm drain it's been ordered for and Safe Drain can pool thousands of gallons, so as long as an airport vacuums their ADF, there remains little chance of it escaping into water supplies.

"Our biggest worry is that it gets to the next drain and you can't close that valve," says Deming. "The gateway to your liability is that manhole. It's the storm drain. If there's where your pollution is going to be introduced into the environment, then that's where your liability is." **GSW**

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# A Steady Supply of Comfort

Whether crews are looking for wire-supported hoses or lay flat options, AmCraft Manufacturing has been perfecting PCA hose options for nearly two decades.

By Walker Jaroch

**T**he plane has landed, the preconditioned air (PCA) unit is chugging along, ready to keep all onboard comfortable as they wait, but how's that PCA going to get onto the plane?

A hose, of course. Yet, it can't just be any hose. A ground crew needs to know its hoses are repair free and sturdy enough to stay that way – something made by the kind of folks who know the ins and outs of PCA hose manufacturing.

With more than 19 years of experience, AmCraft Manufacturing has gone from repairing PCA hoses to making their own.

“The airlines kept bringing in PCA hoses, which needed repair. The ground crew would bring in these hoses and tell us all about their complaints with them and if we could do this or that to improve the product. Since we already made products out of the same material, it just became natural for us to not just repair the hoses,

but also manufacture new product. A couple of years later, 80 percent of our business was PCA hoses, in all possible configurations and for several different applications,” says Nelly Kuster, Director of Operations at AmCraft Manufacturing.

AmCraft Manufacturing offers two main variations of hoses, wire-supported hoses and lay flat hoses. Both product lines offer various insulation levels and hose sections, building a wide range of hose configuration options, says Kuster.

AmCraft Manufacturing's Air Insulated Lay Flat hoses were born in 2015, Kuster says, out of customer requests for a lightweight and well-insulated hose.

“Over the years, the weight and effectiveness of the insulation always came up as a subject repeatedly. We set the goal to create a lightweight, durable hose,” says Kuster. “Air is the best insulation and has no weight. We decided to use top-notch



All photos courtesy of AmCraft Manufacturing





materials to make the hose as durable as possible. The air insulated hose units continue to be deployed at locations with extreme climates because of its ability to self-purge accumulated water."

Since the launch of their own PCA hoses 19 years ago, Kuster says that AmCraft Manufacturing has been making steady upgrades to their products. Insulation materials have been changed three times and the hoses' exterior material options have been expanded twice. What's more, zipper and Velcro configuration options have grown three times.

Hoses range in length from 1 foot to 50 feet and come in diameters of 4 inches and 18 inches – and a wide selection of adapters, elbows and diameter reducers are available in any inner diameter combination.

AmCraft Manufacturing also produces smaller diameter hoses of 4 inches, designed for military aircraft.

"The two main products are the wire-supported PCA hose and the lay flat PCA hose. Both product lines offer various insulation levels and hose sections to build a wide range of hose configuration options," adds Kuster.

The PCA hoses are composed of four main parts: The inner liner, the outer liner (or skin), the insulation between the two liners, and the coupling system, also known as the cuffs.

"The inner liner, the insulation and the outer skin form a tube and there is a cuff on each end of the tube to couple them to other tubes," Kuster explains.

Operating temperatures of the hose are between -40 degrees F up to 165 degrees F.


Kuster says the most important factor to consider before buying a PCA hose is the climate they are going to be used in. Kuster

recommends the hoses not be left in direct sunlight for extended periods of time and explains the inside of hoses need to be kept dry, adding that hoses should be used regularly in warm, humid climates to purge

water build-up from the interior.

The weight of the hose sections and how the hose sections will be stowed should also be considered by ground handling crews to make sure the hoses remain free of tears and punctures. **GSW**

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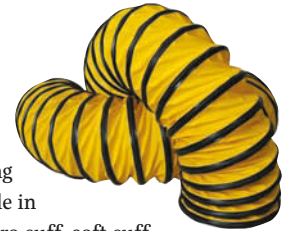
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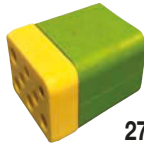
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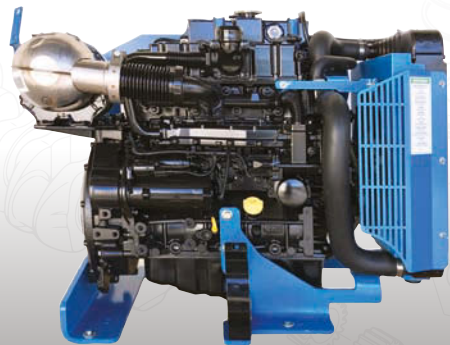
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# When a Plan Doesn't Go As Planned

A little first hand experience provides plenty of appreciation for the job done by ground support staff.

Serving as editor of an aviation magazine comes with its fair share of air travel. And, as John Grant noted in this month's Industry Expert Column, a lot of resources are required to get ground support equipment where it's needed so airlines can push-back on time and airports can keep passenger traffic flowing.

But sometimes, things don't go as planned. That's the situation I found myself in last month as I prepared to visit our Lifetime Achievement award winner Dewey Kulzer outside of Dallas.

When you're based in Wisconsin, you'll occasionally find yourself blanketed in snow - even in April. When our latest snowstorm blew into the area, suddenly my direct flight from Milwaukee to Dallas was cancelled.

So instead of flying out the next morning, I quickly got rebooked and left for the airport immediately. The weather was affecting our departure, but an air start helped get the plane humming, we pushed back and deicers cleared the wings to send us on our way.

However, I didn't make it far as much of the Midwest was impacted by the same weather system. So, the rebooking process began again, but this time in the terminal at Cleveland Hopkins International Airport (CLE) with frantic, stressed passengers around me.

But when you cover aviation - and ground support, in particular - you get a different appreciation for the process. Airline agents worked with passengers to get rebooked on alternate flights and used radios to call down to baggage handlers to ensure luggage was being pulled from planes and routed to new connections or inside to the carousel.

The weather was out of our control, but the people working to remedy the situation were in top-notch form.

So, while my travel itinerary didn't go as planned, I was thankful to get to Texas the next day and meet with Dewey Kulzer, as planned. His story was one worth hearing, and I hope you enjoyed reading it.

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