FUELING EQUIPMENT

DECEMBER 2021/JANUARY 2022

Ground Support WORLDWIDE

EQUIPMENT – SERVICES – HANDLING

DATA'S EFFECT ON GSE PERFORMANCE

Collecting equipment data is important, but how it's analyzed and applied allows for improved ground operations.

INTERNATIONAL
Ground Handling's Virtual Classroom

GROUND SERVICE PROVIDERS
What Air Cargo Needs from Airports

INDUSTRY EXPERT COLUMN
Safety Leadership's Critical Function in SMS

AviationPros.com

Commander 30i Electric Cargo Loader

JBT ECO go clean. go green.

MAKES IT POSSIBLE.

jbtc.com/aerotech

Elevating cargo to the next level.

GREAT RELIABILITY
EASY TO OPERATE
EASY TO MAINTAIN

Ground Support WORLDWIDE

Published by
Endeavor Business Media
1233 Janesville Ave
Fort Atkinson WI 53538
920-563-6388 • 800-547-7377
Vol. 29, No. 10

Subscription Customer Service
877-382-9187; 847-559-7598
Circ.groundsupportww@omeda.com
PO Box 3257 Northbrook, IL 60065-3257

Ground Support Worldwide (USPS 0015-386), (ISSN 1934-2861 print; ISSN 2150-4016 online) is published 10 times per year in February, March, April, May, June/July, August, September, October, November and December/January by Endeavor Business Media, LLC. 1233 Janesville Ave, Fort Atkinson, WI 53538. Periodicals postage paid at Fort Atkinson, WI 53538 and additional mailing offices. POSTMASTER: Send address changes to Ground Support Worldwide, PO Box 3257, Northbrook, IL 60065-3257. Canada Post PM40612608. Return undeliverable Canadian addresses to: Ground Support Worldwide PO Box 25542, London, ON N6C 6B2.

Subscriptions: Individual print and digital subscriptions are available without charge to qualified subscribers worldwide. Please visit www.aviationpros.com and click on "Subscribe". Publisher reserves the right to reject non-qualified subscriptions. Subscription prices: U.S. $48 per year, $93 two year; Canada/Mexico $70 per year, $131 two year; All other countries $103 per year, $195 two year. All subscriptions payable in U.S. funds, drawn on U.S. bank. Canadian GST#842773848. Back issue $10 prepaid, if available. Printed in the USA.

SOCIAL MEDIA & ONLINE CONTENT

FACEBOOK
Facebook.com/GroundSupportWW

LINKEDIN
linkedin.com/company/ground-support-worldwide

TWITTER
@GroundSupportWW

INSTAGRAM
groundsupportww

AVIATIONPROS
Print | Digital | Online | Live Events
AviationPros.com

ONLINE EXCLUSIVES

Learning From COVID

By Matt Morrison

What cleaning lessons from the pandemic can your airport embrace to enhance facilities for years to come?

AviationPros.com/21244970

VIDEOS

Stertil-Koni at the 2021 International GSE Expo

Ron Reazer, western regional sales manager at Stertil-Koni, offers a product overview of the company's EARTHLIFT and demonstrates the ebright Smart Control System.

AviationPros.com/21244722

PODCASTS

Software Solutions for Staff Planning

Uschi Schulte-Sasse, senior vice president at INFORM GmbH, joins Ground Support Worldwide editor Josh Smith at the IATA Ground Handling Conference to discuss her company's GroundStar platform.

AviationPros.com/21246867

PRODUCTS

Build With Robots

Disinfecting Robot

AviationPros.com/21244836

ARTICLES

Webasto and Goldhofer's eGSE Partnership

By Josh Smith

With many airports declaring goals to reduce ground emissions, Webasto and Goldhofer have partnered to optimize Goldhofer's cargo and pushback tow tractor, the Sherpa E New Gen, which offers quiet and emission-free operation.

AviationPros.com/21242165

Smart Tools and MRO Efficiency

By Jonathan Beaumel

When it comes to maintenance operations, many manufacturers are often swimming against the tide in their quest to lower costs and cut the time taken to perform essential tasks.

AviationPros.com/21245141

Responding to a Pandemic and a Look to the Future

By Antony Marke

Our industry has been one of the hardest hit, but our business has consistently approached every challenge we've faced with a proactive approach.

AviationPros.com/21246514

SCAN ME

Get more news and product information delivered directly to your inbox! Choose the content you want, when you want it! Sign up for Ground Support Newsletters: AviationPros.com/subscribe

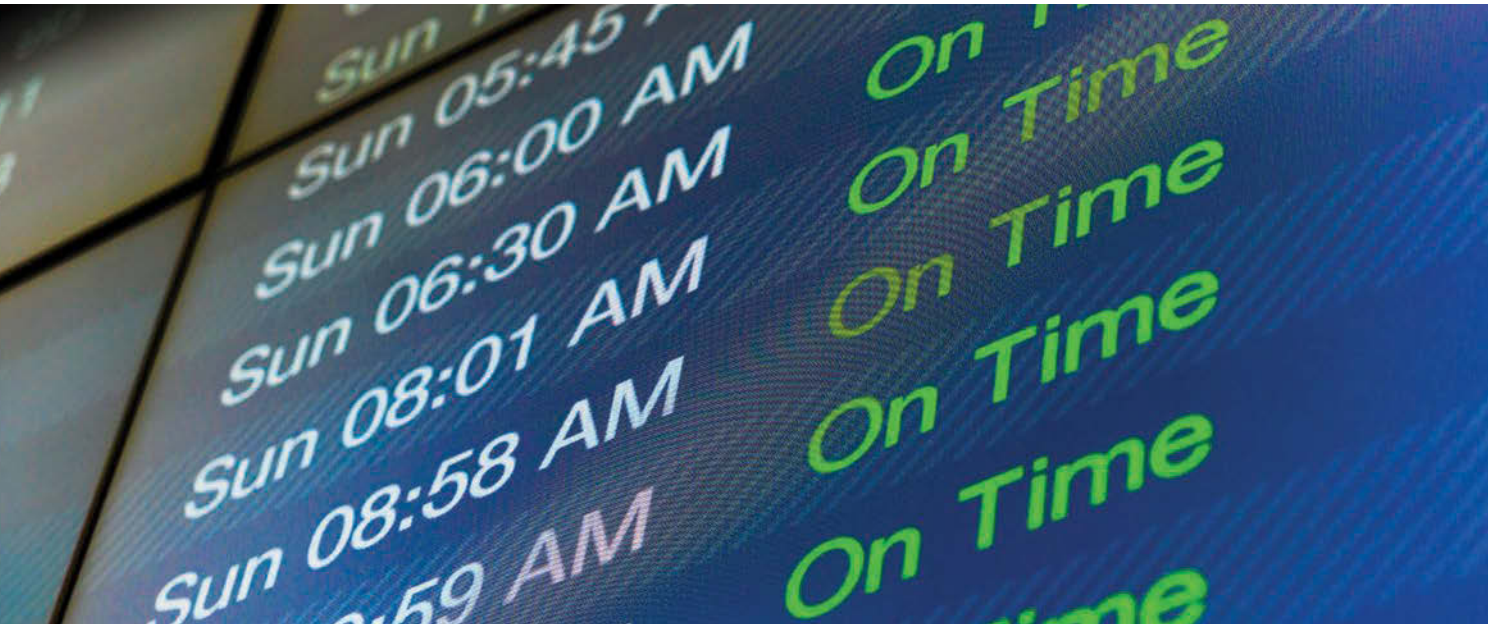
Follow us on social media:

FACEBOOK facebook.com/AviationPros

TWITTER @aviation_pros

YOUTUBE youtube.com/c/AviationPros

How to improve your airline's performance



across the board.

David Clark Wireless Headset Systems

Our Wireless Headset Systems enhance ground crew communications to help avoid flight delays, potential injury and costly aircraft damage during pushback and ramp operations.

Because keeping planes in the air, starts with better communication on the ground.

Call **800-298-6235** (508-751-5800 Outside the USA) for a **system demonstration** or visit **www.davidclark.com** for more information.

David Clark

WWW.DAVIDCLARK.COM

An Employee Owned American Company

▲ Group Publisher -
Missy Zingsheim
missy@aviationpros.com
920-563-1665

A Legacy We Built Together

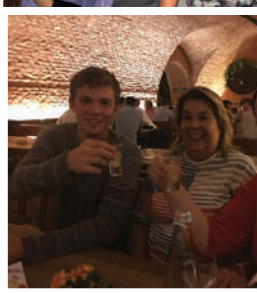
Every new beginning comes from some other beginning's end. – *Seneca*

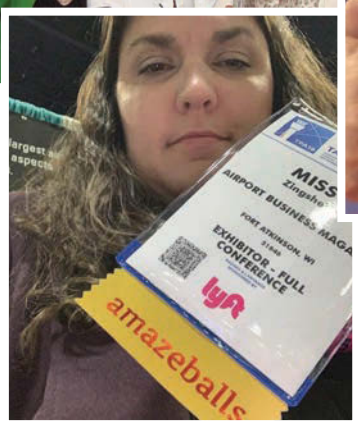
When I first started in the Aviation Group, I knew nothing about the industry. I had flown a couple times in my life. Navigating through an airport seemed daunting. And what was the difference between GSE and AOA?

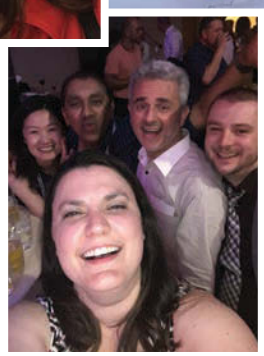
I quickly learned the aviation industry is the most passionate, dedicated and close–knit community that I've ever been involved in; and if you have the time, there's an abundance of people eager to teach you how it all works.

The aviation industry allowed me to travel to places I would've never thought to go and introduced me to countless people with whom I've made deep, enduring friendships that will last a lifetime. The past 16 years have been amazing. The memories will always put a smile on my face. I've always felt included and supported within the industry and appreciated all the conversations, relationships and connections I was able to make.

Some of my biggest accomplishments in this role has been creating the 40 under 40 program for *Airport Business*







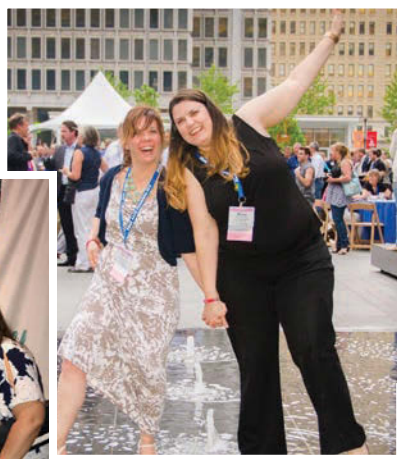
and *Aircraft Maintenance Technology*, where we highlight the best and the brightest impacting the industry; and the GSE Expo where we brought together two events to build the premier expo in the ground support industry.

I've been fortunate to work with an amazing, passionate and hardworking team while doing a job I love, in an industry I've embraced at a supportive company that allowed me to take risks and put their trust in my abilities.

Which leads me to the quote from Seneca, "Every new beginning comes from some other beginning's end." The Aviation Group within Endeavor Business Media (EBM) is where I started in business-to-business publishing. In 2022, I will take on a new role as vice president of sales operations at EBM and step away from the Aviation Group publisher position.

This quote can also be heard in the song "Closing Time" by the band Semisonic, which also seems like a fitting theme song to end my time in aviation.

I know no one ever really leaves this industry, so this is not my goodbye. This is, until I see you again.



▶ Upcoming Events

Jan. 18-21
NBAA Schedulers & Dispatchers
San Diego, CA

Jan. 20
ICAO/EASA Strengthening Regional Cooperation Conference
Virtual Event

Feb. 7-9
NBAA Leadership Conference
Fort Worth, TX

March 17-19
International Women in Aviation Conference
Nashville, TN

March 29-31
GHI Americas Conference
Miami, FL

▶ TOP NEWS

SAF Delivery at DFW is Industry's First Demonstration of Circular Economy

Upon receiving its first delivery of sustainable aviation fuel (SAF), Dallas Fort Worth International Airport (DFW), in collaboration with Avfuel Corporation and Neste, became the first U.S. airport to test a collaborative circular economy project in the aviation sector. The pilot project began at the airport, where Neste, via its subsidiary Mahoney Environmental, collected used cooking oil from more than 200 concessionaires who prepare and serve food to airport customers. Neste converted this waste material into renewable fuels. To complete the circle, a demonstrative load of Neste MY Sustainable Aviation Fuel was supplied to DFW Corporate Aviation, the airport's FBO.

"The introduction of sustainable aviation fuel to DFW airport marks a major milestone in our effort to reduce our sector's overall carbon footprint," said Robert Horton, DFW environmental affairs vice president. "We recognize our future success depends on our ability to protect our natural resources, and we are committed to continuing to serve as an industry leader in sustainable practices."

"Together we're charting a bold new flight path that shows airports how they can achieve their climate goals faster and ultimately enable flight operators, businesses and passengers to fly with a smaller carbon footprint," said Chris Cooper, Neste's vice president of renewable aviation in North America.

dnata Expands into Africa, Announces Major Investment in Zanzibar

dnata signed a concession agreement with the government of Zanzibar, along with Emirates Leisure Retail and SEGAP, a joint venture between airport infrastructure and operations specialists Egis, and private equity fund manager AIIM. Under the partnership, dnata will oversee the operations of Zanzibar Abeid Amani Karume International Airport's (ZNZ) new international terminal (T3), with SEGAP supporting the Zanzibar Airports Authority in a management capacity. Emirates Leisure Retail will partner with MMI as master concessionaire for all food and beverage, duty-free and commercial outlets at T3.

Providing ground and passenger handling services to airline customers at ZNZ, dnata expects to handle over 4,000 flights annually at the airport. dnata will also invest in a state-of-the-art cargo center to establish cargo operations at the airport, supporting local trade and businesses. In addition, dnata will launch meet and greet and lounge services through its airport hospitality brand, marhaba. dnata's expansion into Zanzibar represents an investment of more than $7 million and will create up to 400 direct local jobs with the company.

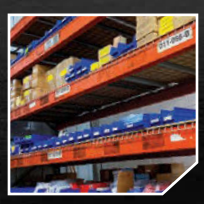
Steve Allen, executive vice president of dnata and chairman of Emirates Leisure Retail and MMI, said, "We are thrilled to

STINAR

VISIT US ONLINE

WWW.STINAR.COM

Equipment Includes 36 Month Manufacturers Warranty






YOUR INDUSTRY LEADER IN GROUND SUPPORT EQUIPMENT SINCE 1946 | **Visit us at www.Stinar.com or call us at (615) 454-5112**

expand our global footprint into Africa and establish operations at the airport of Zanzibar. We are confident that our investment in the local aviation industry will stimulate tourism and trade, delivering significant benefits for Zanzibar businesses and the local community."

WFS Invests in Copenhagen Cargo Handling Facility Expansion

Copenhagen Airport has acknowledged Worldwide Flight Services' (WFS) latest investment to expand its cargo handling facilities as enabling "future airfreight growth" for the airport and its airline clients.

WFS is the largest cargo handler in Copenhagen, supporting 31 airlines with flights to and from the Danish capital. It provides cargo handling services for a further 127 offline carriers. It opened its first 4,600 m^2 cargo terminal in Copenhagen

in 2008 and expanded with an additional 3,000 m^2 Terminal 2 facility at the beginning of 2010. In 2019, WFS invested in a new GDP-certified Pharma facility, increasing its footprint by 1,500 m^2.

WFS is investing once again by signing a contract for a new Terminal 3 cargo center. The 3,700 m^2 warehouse facility will open in Q4 2022.

In the meantime, to support its airline customers' growing volumes, WFS has taken a 12-month lease on an additional facility to provide the additional capacity until construction of the new cargo center is completed next year.

"Throughout the pandemic, WFS has continued to provide a full 24/7/365 cargo handling service for our customers in Copenhagen, including those closely connected to the country's thriving pharma industry. As volumes recover to close to their pre-COVID level, and we see new growth potential ahead, we are able to make this new investment to ensure WFS and Copenhagen Airport have the infrastructure in place to maintain high quality cargo handling services, for both our existing clients and future customers which recognize this strategically important regional cargo hub," said Thomas Egeland, general manager, WFS – Scandinavia.

▶ PEOPLE

Swissport Creates Global Cargo Chair Position

Swissport International is further strengthening its air cargo business by creating the position of a global cargo chair. The new role will be held by Dirk Goovaerts, head of the Middle East and Africa region. Goovaerts will also continue serving in his current position with the company.

"Swissport is one of the largest air cargo handling companies in the world. Air cargo is one of the strategic pillars and of fundamental importance to our airline customers and the global supply chain," said Goovaerts. "Going forward, we will further develop our product with a special focus on digital acceleration, innovation and seamless integration with stakeholders in the air cargo community. Our goal is to become the air cargo handler of choice, delivering operational excellence for existing and potential customers in 116 warehouses around the world."

In other news, Karen Cox has started as global director, operations and safety at Swissport. Together with her team, she will drive the transformation of Swissport's global operations to provide operational excellence and a consistent service delivery to the company's airline customers around the globe.

Gloy Resigns from Lufthansa Cargo Executive Board

Harald Gloy, chief operations and human resources officer at Lufthansa Cargo, will leave the Executive Board of Lufthansa Cargo AG on Feb. 28, 2022 for personal reasons and will devote himself to professional challenges outside the Lufthansa Group.

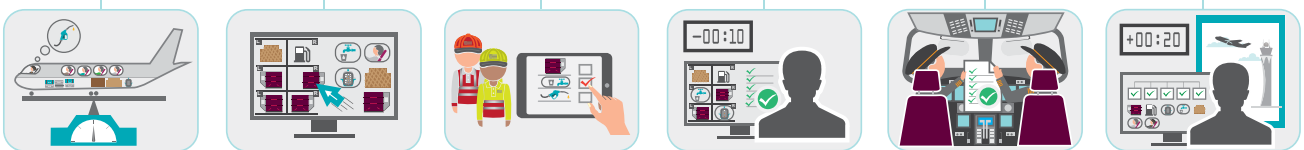
The 49-year-old industrial engineer has been chief operations officer since Jan. 1, 2019. Gloy was responsible for handling at the Frankfurt and Munich hubs as well as global handling management, flight operations and security. Since March 1, Gloy has also been responsible for human resources on the executive board and assumed the role of labor director.

"Harald Gloy has served more than 20 years and very successfully in various positions, first in the top management of Lufthansa Technik and since 2019 on the Executive Board of Lufthansa Cargo," said Michael Niggemann, chairman of the supervisory board of Lufthansa Cargo AG and chief human resources officer of the Lufthansa Group. "With his extensive experience in aviation and logistics as well as in managing large business units, he has continued to lead Lufthansa Cargo towards the future as part of the executive board team and contributed to Lufthansa Cargo's current great economic success."

QATAR AVIATION SERVICES

CENTRALIZED LOAD CONTROL

qataraviation.com



Zero fuel | Planning | Loading confirmation | Ramp clearance | Final ACARS | Post departure

Qatar Aviation Services Centralized Load Control

Working with your airline to build up a tailor made solution for your Load Control needs.

Full scope and customized service supporting any type of operation.

For more details,

+974 4010 3591
qasinfo@qataraviation.com

QATAR AVIATION SERVICES
القطرية لخدمات الطيران
Delivering Excellence Worldwide خدمات رائدة عالمياً

ADB SAFEGATE Announces Appointment of COO and EVP Airfield

ADB SAFEGATE announces the appointment of Joe Pokoj to chief operating officer of its global organization and executive vice president of its airfield business line. Pokoj will retain his current role as CEO Americas, a position he has held since 2013. He has over 30 years' experience with the company and is an airfield lighting industry veteran.

Pokoj's career with then-ADB started in 1987 as electrical engineer, quickly moving to project engineering manager. In 1999, he became director of sales and marketing, having responsibility for airfield lighting sales in North America and international U.S. military, as well as business development, marketing and technical services. In 2010, he added responsibility for Latin America, and in 2013, became president and CEO Americas.

"Joe brings a vast experience and knowledge of ADB SAFEGATE's customers' requirements to his new role and is greatly respected by customers and colleagues alike," said Laurent Dubois, CEO of ADB SAFEGATE. "This makes him uniquely qualified to steer our organization as we, and our industry, move forward out of the coronavirus pandemic, as well as longer term with our strategic transformation journey."

Cargo iQ Announces New Executive Director

Cargo iQ has named Lothar Moehle as its new executive director. Moehle brings over four decades of experience in the air cargo and logistics sectors, including senior positions at UPS and DB Schenker. He also was a founding father of Cargo 2000, the original name for Cargo iQ, when it launched in 1997.

"Cargo iQ is one of the few organizations in the industry with all stakeholders working together on transparency, visibility and quality improvement, and I join the leadership team as we look to drive the organization in new directions, to achieve our ultimate goal of a quality-driven global supply chain," said Moehle.

"The last 18 months have taught us, more than ever, to embrace digitalization for a seamless and transparent supply chain.

"Collaboration is key to us achieving that as an industry, and Cargo iQ provides a vital platform to achieve that collaboration."

SATS Names Next President and CEO

Kerry Mok Tee Heong succeeds Alex Hungate as SATS Group president and chief executive officer.

Mok joined SATS in June 2018 as the chief executive officer of food solutions. Prior, he held various leadership positions such as CEO of YCH Group, acting chief executive officer and chief operat-

NEW DEALS

Alliance Ground International Acquires Maestro International Cargo

Alliance Ground International has acquired MIC Cargo (Maestro). Maestro has positioned itself as one of ORD's leading ground handlers, focusing on excellent customer service and an innovative cold-chain pharmaceutical service offering. This acquisition adds additional airport warehouses and aircraft parking at ORD as AGI continues to poise itself for many years of growth. AGI & MIC's combined warehouse footprint at ORD is now over 1 million sq. ft.

"It's great to welcome Maestro and its employees to AGI. Maestro is well known for its customer service and innovative solution offering at ORD. I look forward to working with Edip, Sanj and the rest of the Maestro team, who share my enthusiasm for our employees, our customers, and the handling industry. AGI will continue to aggressively pursue opportunities to partner with companies like MIC to expand our growing presence in North America and beyond with a focus on air cargo and below the wing services to the dedicated air freighter and commercial aviation markets," Jared Azcuy, AGI CEO, said.

"We are very happy to be a part of the AGI team. We have worked with AGI for years and have always admired their large operation and strategic growth approach. We are looking forward to building the business together at ORD and across the country and are very excited that our employees will have new opportunities and possibilities," Edip Pektas, Maestro's CEO, said.

Menzies Aviation Announces easyJet Contract Renewals at 21 European Airports

Menzies Aviation has secured an extension to its long-standing ground services partnership with easyJet at 21 airports across Europe. The contract renewals will see Menzies provide a range of ground services for easyJet flights at major European and UK airports. Collectively, these contracts represent more than 80,000 turns annually.

"As one of Europe's leading airlines, we are delighted that easyJet has yet again

ing officer of Goodpack Limited, as well as senior roles at Accenture and DHL.

SATS chairman Euleen Goh said, "Based on our comprehensive succession planning process, Kerry has been chosen as the best candidate for the role of PCEO. Kerry is a seasoned executive with more than two decades of experience in supply chain management and logistics. Over the last three years in SATS, Kerry has been leading the food solutions team to develop innovative food solutions to reshape the business for the post COVID opportunities. I am confident that, together with the board and all at SATS, Kerry will lead the SATS Group forward to realize our vision for the future."

Hatz Diesel of North America, Inc. Adds Product Manager, fiPMG

Hatz Diesel of North America, Inc. welcomes its new product manager, flywheel-integrated permanent magnet generators (fiPMG), Ben Froland.

Froland is a machinery and power industry veteran with an entrepreneurial approach that will help accelerate the success of this unique and innovative product line. He joins Hatz with more than 25 years of experience working in automotive and equipment manufacturing with significant time performing engineering and product management.

"Ben's product management experience will give him key roles in the strategic planning and tactical execution of all activities and functions associated with the fiPMG product family," said Mike Hartoonian, president and CEO of Hatz North America.

selected Menzies as its partner of choice to deliver a suite of services across its European network. Multiple contract renewals are testament to the excellent standard of service that our teams in Europe provide, and we look forward to continuing to deliver best-in-class solutions for easyJet to further strengthen our already long-standing partnership," Philipp Joeinig, chairman and CEO of John Menzies plc, said.

In other news, Menzies secured a significant contract win with Mexico's flagship carrier and largest international airline, Aeromexico. The contract includes ground handling services at 15 airports across the country. The global aviation logistics specialist also announced expansion of its contract with Aer Lingus at Manchester Airport to provide passenger, ramp, cabin cleaning and deicing services for both long- and short-haul flights.

Lufthansa Awards WFS' First Cargo–Only Handling Contract in Brazil

Lufthansa Cargo has awarded a three–year contract to Worldwide Flight Services (WFS) at São Paulo–Guarulhos International Airport to handle cargo carried onboard its passenger, freighter and "preighter" services. The agreement is WFS' first contract including cargo–only operations in Brazil.

Lufthansa Cargo has served the São Paulo air cargo market for over 30 years. It now offers daily Boeing 747– 800 passenger services connecting the Brazilian city and Frankfurt as well as a weekly B777 freighter flight, which provides cargo capacity for shipments from Viracopos International Airport and Argentina's Ezeiza International Airport to Frankfurt. Under the terms of the contract, WFS will provide cargo handling services to support Lufthansa Cargo's on–demand A340–300 "preighter" flights ex São Paulo.

Overall, WFS expects to handle some 14,000 tonnes of import and export cargo per annum for the airline in Brazil. WFS provides cargo build–up and documentation services, special cargo assistance and mail handling.

"Winning this contract with Lufthansa, one of the world's most respected cargo carrying airlines, is the best way to demonstrate the quality of WFS' cargo handling credentials in Brazil. It also reinforces the great partnership we have with the airline, both in Brazil and at a global level," said Rubens Pereira Leitão Filho, CEO WFS/Orbital Brazil.

Also in 2021, WFS has been awarded contracts to handle Itapemirim Airline at 11 stations in Brazil, as well as new agreements with Azul Airline in VCP & GIG, ACT Airlines in VCP and Nella Airlines in GRU. WFS has also renewed contracts with Atlas Air and Air France KLM.

Aviator Airport Alliance Continues to Develop Partnership with Sunclass Airlines

Aviator Airport Alliance has extended its partnership agreement with Sunclass Airlines for deicing services. Under the renewed contract, Aviator will provide Sunclass Airlines with deicing services at Stockholm–Arlanda, Malmo and Gothenburg Airports for three years. The contract extends the scope of Aviator–provided services for the airline, as the company has been already providing Sunclass Airlines with ground handling services. Additionally, the partners renewed a previous contract for deicing services at Copenhagen Airport.

"We are delighted to continue our long–lasting partnership with Sunclass Airlines. The renewal of deicing services' contract proves that the airline values our services and trusts us to provide a quality experience. We are excited to continue working with Sunclass Airlines," said Jo Alex Tanem, CEO of Aviator Airport Alliance.

Air BP Commences Aviation Fuel Venture in Iraq

Air BP has commenced a new aircraft fueling joint venture at Baghdad International Airport (BGW). The joint venture company, United Iraqi Company for Airports and Ground Handling Services Limited, operating under the name MASIL, was awarded an operating license for aircraft refueling, ground handling and cargo services.

The joint venture aims to provide a range of services with a remit to bring world class standards and global industry expertise to further improve the customer experience, safety and operational standards at the airport. Air BP is providing assurance on all aspects of fuel supply and aircraft refueling operations. This includes providing world class operating standards, workforce training to enhance knowledge and competence, and advice on product quality, operations, HSSE and maintenance.

"Air BP is delighted to be commencing its new JV. We see a strong future for aviation in Iraq and are excited to be involved in this market and contribute to its future development and success. Fuel supply is a vital component of the airport operation that will add value to airline operators. Over time, Air BP and its partners aim to build a strong and sustainable business in Iraq, drawing upon the global expertise of the partners combined with the local skills of Iraqis," Duce Gotora VP of strategy and sustainability, said.

Jettainer and Swiss International Air Lines Extend their Cooperation

Jettainer will provide global ULD management and maintenance services for Swiss International Air Lines, including its air cargo division Swiss WorldCargo and affiliate Edelweiss Air, for another five years. The contract extension will see Jettainer replace more than 650 older AKE containers with lighter and more environmentally friendly lightweight ULDs. This step will reduce weight and jet fuel, helping SWISS continue on its road towards greater sustainability in aviation.

Jettainer has been supporting SWISS with a local team and dedicated ULD management services since the partnership launched in 2006. Providing efficient steering and positioning, a global network and independent repair partner setup, SWISS benefits not only commercially but also environmentally from optimized ULD fleet and ULD journeys.

"ULDs can play a key role in saving huge amounts of jet fuel each year. Each kilogram less and every deadhead flight avoided count. We deliver these savings by efficient ULD management and by deploying innovative lightweight equipment. This approach makes it possible for our customer Swiss International Air Lines to cut costs and improve their environmental footprint," added Thorsten Riekert, chief sales officer of Jettainer GmbH.

Groundforce Portugal Signs Contracts with New Airlines

Groundforce Portugal recently signed new ground handling contracts with six airlines and renewed contracts with 10 clients. The company has thus increased its customers base with the arrival of Lot Polish (Poland), JetPak BVBA (Belgium), Tarom (Romania), Air Seven (Denmark), Swiss (Switzerland) and Ukraine International, with the last two now flying to Madeira.

In addition to the new contracts, the largest Portuguese handler also renewed the contracts it already held with SATA Azores, Azul Airlines, Binter Canarias, Privilege Style, Enter Air, Air Moldova, Grupo TUI, Delta Airlines, Air Moldova and Ural Airlines, continuing its partnership with these customers in the national airports.

"We are very pleased with the evolution of demand and proud with this commercial achievement. All airlines are very strict concerning the required parameters of their operation – safety, service quality and improved value. We believe that we might achieve pre-pandemic levels very soon. Groundforce is highly rated for the quality of its operations. We are prepared to carry on with full operation assistance and to deliver excellency to our customers," said Arafat Tayob, the commercial director of Groundforce Portugal.

Safety Leadership's Critical Function in SMS

The presence of deliberate leadership in a safety management system may mean the difference between a system that works to bring risk under organizational control and one that is relegated to a manual that sits on the shelf collecting dust.

By Jason Starke

When an organization embarks on implementing a safety management system (SMS), it is very careful that the policies, processes and procedures to support the four components and 12 elements are developed and addressed. Project plans are developed and a champion(s) is assigned to ensure not one single item is missed in fear of creating a system that is ineffective or incomplete. Likewise, for those organizations that have already implemented safety management, great lengths are gone to through self- or external evaluation to ensure all components and elements are being addressed through the implemented framework.

However, even with careful attention paid to the promulgated SMS framework, an important element seems to be missed – leadership. This may be difficult to resolve as leadership is not a discrete element on an SMS implementation plan or SMS evaluation, but is critical to the success of a functioning and effective system to manage safety.

In reality, leadership is implied in the SMS framework under two of the four components. In the first component – safety policy and objectives – leadership is a substantial part of management commitment. Under this element, leadership is called out to provide critical resources, establish risk tolerability, hold managers accountable to safety management responsibilities, establish safety objectives for the organization and develop a positive safety culture in the organization (ICAO, 2018). Under the fourth component – safety promotion – leadership is charged with engendering engagement in the safety management system through the provision of training resources and supporting rich communication across the organization (ICAO, 2018).

In other words, leadership – specifically, what can be referred to as safety leadership – is a critical part of the safety management system that should not be overlooked if the organization wants to implement and maintain a robust SMS.

Before diving into how leadership impacts the safety management system, it is first important to state that leadership is not the same as management. Management is a function where resources are guided/allocated/procured to accomplish tasks in support of the overall mission of the organization. Management is a function of position in the organization and usually comes with status and privileges commensurate with the position.

Leadership, on the other end, is not a function of position but rather influence (Bass et al., 2008; Northouse, 2019). Leadership is about influencing and rallying followers to perform in support of understood and accepted organizational goals. There are many approaches to leadership that have been researched in academia to determine the impact on performance each one has, but the important point here is what leadership is and the importance of leadership in sustaining a safety management system.

The presence of deliberate leadership in the SMS may mean the difference between a system that works to bring risk under organizational control and one that is relegated to a manual that sits on the shelf collecting dust.

Regarding leadership approaches, there is one that is very counterproductive to developing and sustaining a robust SMS. This leadership style is referred to as laissez-faire leadership, which is a hands-off approach in terms of influencing and guiding. While this leadership style may be acceptable, and even preferred, as a general leadership style in some of the more "hip" organizations, this approach can be detrimental to the development and sustainment of a robust SMS.

A safety management system needs deliberate, hands-on leadership to thrive. This is not an invitation to micro-management – remember leadership and management are two different things – but rather a call for intentional engagement. However, worse than laissez-faire leadership would be leadership that actively did not care about the SMS or is even antagonistic about the SMS. Where laissez-faire suggests hands-off, leadership that is contra to safety management efforts is hands-on in a negative way.

However, whether leadership is not present in developing and maintaining the SMS or leadership is not accepting and opposed to safety management, something called a SWAMP safety culture can develop. I first heard this term from Terry Yeomans,

IS-BAH director, while working at IBAC and it stands for safety without management practices; and like a real swamp, it is a bad place to be.

In a SWAMP environment, the following are present in the organization:

- Safety responsibility/accountability is not accepted and perceived as a burden.
- Accidents are accepted as part of the business – think of the last time a leader said, "it is not a question of if, but when."
- There is minimal to no strategic planning for safety.
- Organization communications are siloed and information is not shared.
- There is a lot of finger-pointing and blaming.

This is a scary place to be, right? While some of these traits may be in any organization, in those with a SWAMP safety environment, these traits are pervasive. What a safety management system needs is good, solid, deliberate safety leadership to not only ensure the work of safety management is done effectively but to build the culture to sustain safety management efforts.

So, what are some traits of a good safety leader in the organization? According to Sperry (2013) and cast in a safety leadership light, here are some characteristics of a good safety leader:

- Identifies the safety vision and mission of the organization and communicates them widely.
- Creates a safety strategy for the organization including the development of safety objectives.
- Builds shared values regarding safety in followers (think safety culture.).
- Is engaged in organizational safety management efforts.

Take a moment to reflect on the safety leadership in your own organization. Are some of the above traits apparent? If so, do you see how it ultimately influences safety performance in your organization? The traits listed above imply the deliberate practice of leadership in regard to safety. Add to that the last trait is explicit in defining a leader's position in relation to the SMS – *engaged*.

Earlier I stated that there are many approaches to leadership and that a given approach isn't necessarily as important as the deliberate act of leadership. However, academic research has shown that there are two proven approaches to leadership in relation to safety. These two approaches are transactional leadership and transformational leadership.

Specifically, transactional leadership has been proven effective in inspiring compliance with safety regulations and standard operating procedures (Clarke, 2013) while transformational leadership has been proven effective in instilling and maintaining a positive safety culture (Mullen et al., 2017; Zohar, 2002). Safety leaders have used both of these approaches in tandem, but I feel that effort should be put into an approach that inspires a passion for safety in the organization, which ultimately leads to creating safety citizens – a topic for another article. The transformational leadership approach is perfectly suited to do this.

Transactional leadership is effective in that the leader will provide something to the follower in exchange for something given by that follower. For example, if you – the follower – comply with the rules and don't have an incident, you will get a reward from me – the leader. Or, it could be that the leader provides the follower with the tools to be safe with the expectation that the follower will use those tools to improve safety.

This leadership approach is effective for instilling compliance-based behaviors, however, it is very shallow. In other words, since the behavior depends on a transaction, the behavior is based on extrinsic actions and/or rewards. What I feel we want in our organizations are followers who are intrinsically motivated to be safe and improve safety in the organization.

Transformational leadership has been shown to influence followers at the deeper level of motivation (Muchiri et al., 2019). This is accomplished through the four facets of transformational leadership:

- Inspirational motivation
- Idealized influence
- Intellectual stimulation
- Individual consideration

A transformational safety leader casts the vision of safety and what needs to be done to support it (inspirational motivation), sets the example regarding safety behavior (idealized influence), encourages follower participation in developing safety solutions and risk controls (intellectual stimulation) and always remembers that the safety management system is not a mechanized group of processes and procedures, but is comprised of people.

As such, the transformational safety leader will coach individuals who doubt safety management and gently hold individuals accountable for his/her safety management obligations (individual consideration).

So, what does deliberate leadership result in with relation to the safety management system? The presence of robust safety leadership will experience rewarding safety objectives being set and resources committed to achieving them, giving safety practitioners a "seat at the table" and holding line managers accountable for safety management responsibilities.

Important, however, is that leadership will be actively engaged in the safety management of the organization. An absence of leadership – or even an antagonistic leadership approach – can lead to safety without management practices. A *quid pro quo* approach to safety leadership will get you compliance, but provide a transformational experience to change hearts.

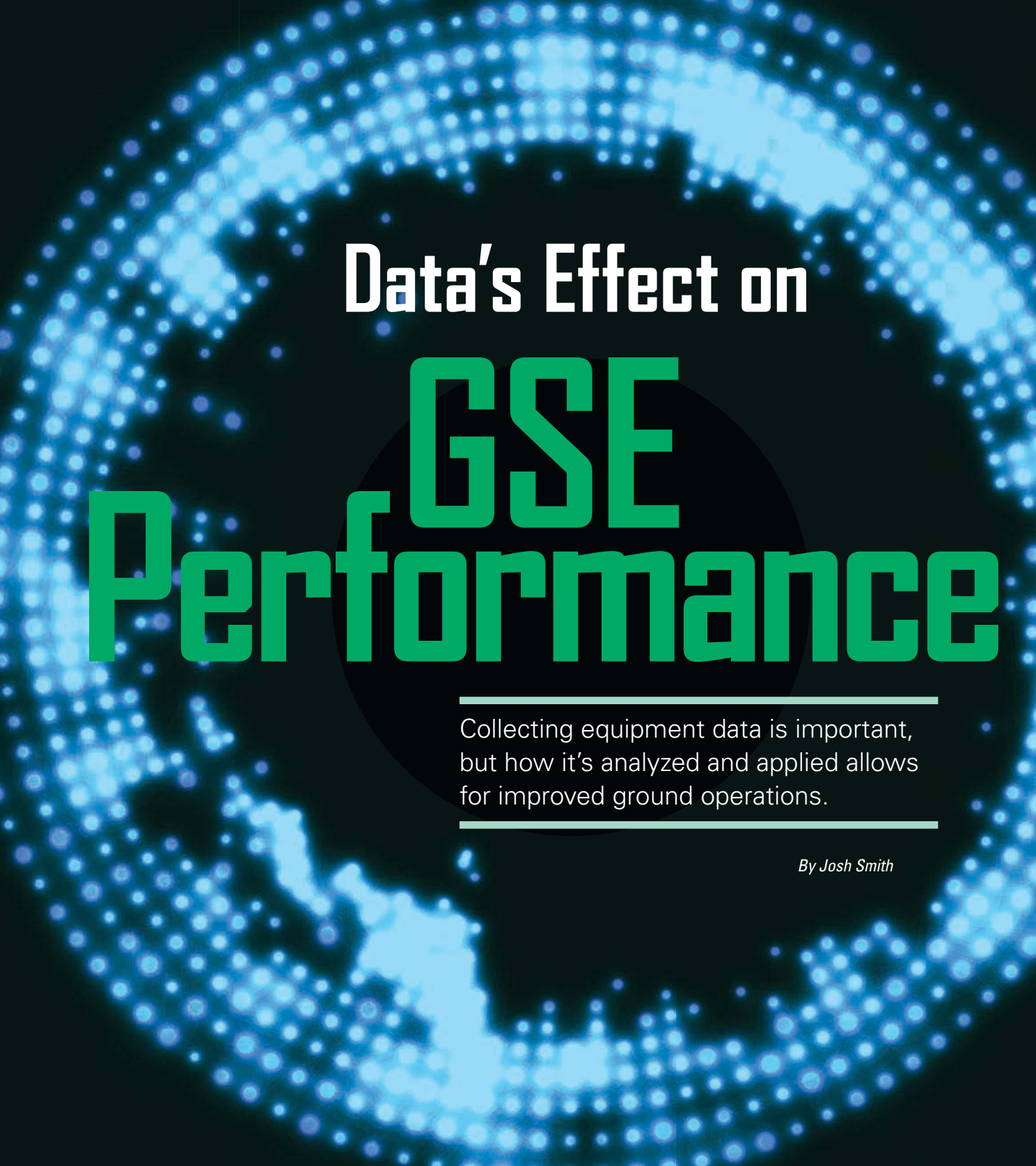
This will instill an innate sense of wanting to improve safety in the organization and set the tone for the organization in terms of safety. Finally, and importantly, leaders need to stay engaged. Be present, be accessible, lead deliberately and shepherd your organization into safe operations. **GSW**

References

Read this article online, complete with full references at www.AviationPros.com/21247671

ABOUT THE AUTHOR:

Jason Starke currently serves as the director of standards for Baldwin Aviation. Prior to this, he served as the International Business Aviation Council (IBAC) operations manager, working with both the IS-BAO and IS-BAH programs. He joined IBAC from Universal Weather and Aviation where he led efforts to develop an SMS software solution and SMS training for Universal's business aviation clients. He also served as a part-time simulator instructor for FlightSafety International in the CL-601 and HS-800XP training programs. He has an Airline Transport Pilot certificate and is rated in the CE-500, CL-600, and HS-125. Starke started his career as a satellite systems operator in the U.S. Air Force and has a B.S. in Meteorology from Northern Illinois University and a Master of Aviation Science from Everglades University. He is currently pursuing his Ph.D. in Organizational Leadership at Northcentral University. Starke also teaches aviation safety and SMS at the University of Southern California, Viterbi School of Engineering.



Data's Effect on GSE Performance

Collecting equipment data is important, but how it's analyzed and applied allows for improved ground operations.

By Josh Smith

In our connected, increasingly digital world, data supplies critical information. And with this information, insights can be realized and operational improvements can be implemented, saving valuable time and money. This is especially true of ground support equipment (GSE) and the way it is used by aviation personnel.

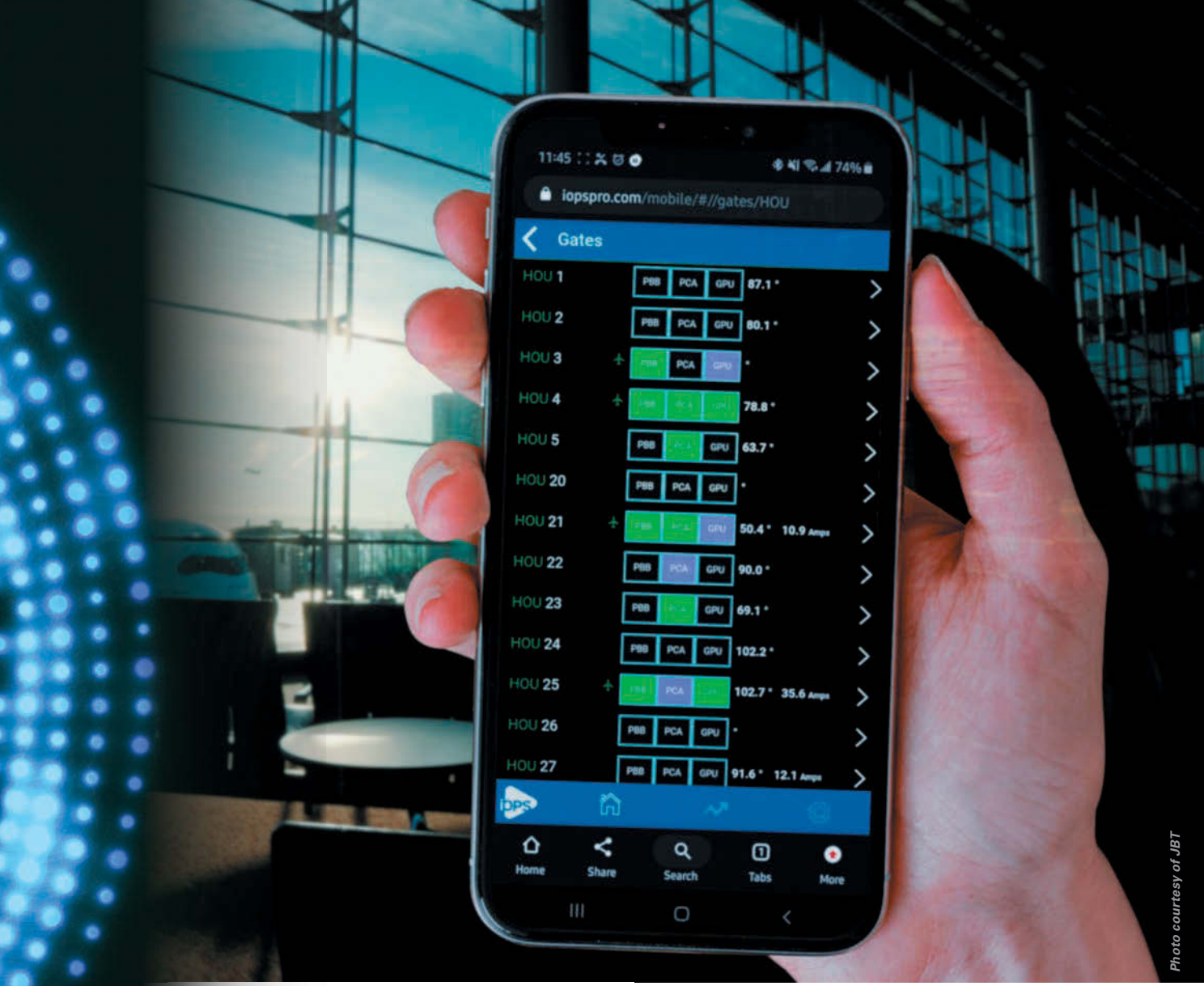


Photo courtesy of JBT

Initially utilized to improve maintenance practices – particularly preventative maintenance (PM), the use of telematics has evolved in the GSE industry, allowing manufacturers, managers and frontline personnel to better understand how equipment is functioning in the field.

JBT product manager Bill Poulsen notes his company's telematics solution, iOPS, has been in use for more than 10 years. However, the way collected data is applied continues to change.

"What it has really evolved into is more of a platform for the users to actually control their whole operations much more effectively. It's not just about maintaining the equipment. It's about all that data that's collected and using that to better run their operations out in the field," he says.

"When we talk iOPS, it really means intelligent operations," Poulsen continues. "Over the last two years, we've gone from really just collecting data and using it to do the maintenance, to actually perform the operations better."

At TLD, the company's Link system offers an end-to-end solution for GSE fleet management based on telemetry technology, explains Driss Mahjoub, group chief technical officer for the TLD group.

"The Link retrieves and filters data from the 'heart' of the machine in order to provide actionable dashboards and alerts to the end-user," Mahjoub explains. "Link is a fleet supervision software allowing the customer to locate the machines, to understand their real operational status and optimize their operation, to detect safety risks, if any, and to support fault diagnosis and maintenance activities."

Through customer collaboration, telematics have been enhanced in multiple ways.

For example, Mahjoub notes Link's User Experience field was upgraded to improve the end-user interface to make finding relevant information easier.

"In addition, we have continuously increased the amount of available data from the machine and the associated KPIs. Last but not the least, we have improved data accuracy," Mahjoub adds.

Poulsen says it is common to meet with customers on a monthly or even bi-weekly basis to demonstrate incremental improvements and added features that are regularly being integrated into iOPS.

"We work together with them so we can make this platform much, much better," he says.

Photo courtesy of JBT

Chief among the improvements made to iOPS is the company's tactical dashboards, which allow hundreds of data points on multiple pieces of equipment to be sorted and presented efficiently to each level of an organization.

"How do you present that in a way that means something to the customer?" Poulsen posits. "They don't necessarily want to know all the numbers. Like what's the temperature of the exhaust? What's the temperature of the coolant fluid? Somebody in their organization wants to know, but the management levels don't really need to know that. They want to know that things are operating, how well they're performing, how well not just the equipment is performing, but how their operators are performing.

"That's some of the kinds of things we can address."

Collecting Data

The range of data that can be collected from GSE assets is vast.

"Link is able to retrieve a goldmine of data such as localization, speed, trajectory, historical routing, battery state-of-charge and state-of-health and much more technical data such as including current level, battery and motor temperatures, fault codes, etc.," Mahjoub says

Many data points can assist with costs savings, environmental goals and safety initiatives.

Poulsen notes geofencing and speed-monitoring can ensure that ground support equipment is operated correctly based on its physical location.

"iOPS really effects the safety of the operation," he says. "It makes it more efficient and also gives the ability to actually have the customer save money."

Poulsen adds that monitoring fuel levels and usages is helpful because sometimes operators let equipment idle in between uses. When this happens, information is reported back to an operations manager, who can address the issue with ground personnel. Similarly, monitoring deicing fluids can reduce operational costs.

"The combination of controlling the usage of the fuel and also the usage of the deicing fluid helps things be more environmentally appropriate," Poulsen adds.

But with numerous data points on each piece of equipment, managing the information can seem daunting. To help customers consume this information, dashboards become important for GSE fleet management.

"Link has pre-set dashboards in the areas of safety, fleet supervision and equipment fault diagnosis," Mahjoub explains, noting customized reports can be created or alerts via email or SMS can be triggered by specific events.

Poulsen refers to JBT's tactical dashboards as "perspectives." The interface can be adjusted based on the data a customer is looking for.

"Everybody within a company has a different perspective on the data that they need to use on an everyday basis," Poulsen explains. "You might have a corporate manager. He needs to know the things related to money and finance. An operations manager at an airport needs to know where his equipment is, whether it's up and running, whether it's ready to go, who's using it right now, how it's being used and that sort of thing.

"We have these different perspectives that we create that essentially only present the data that's needed by that particular function within a customer's company," he continues. "The highest level person in the company actually needs to know less specific data about that equipment than the guy that's down there in the field, repairing that equipment. [The service technicians] need to know those things – like temperatures and wear information – so they can do their job."

Since too much data runs the risk of overwhelming new users, the concept of dashboards is designed to declutter data and make information easier to digest.

Applying Data

The purpose of telemetry is not just displaying data, but more importantly analyzing the data. The way data is applied to GSE is important, and Poulsen uses routine maintenance as an example.

"Traditionally, people have gone by usage hours – how many hours has that equipment been used? – to determine a maintenance activity," he says. "What we're doing now is combining multiple sub-level elements that might look at engine temperatures, might look at engine RPMs, might look at fuel usage. We can look at things like how many times has a joystick been moved back and forth."

All of these sub-level parameters that contribute to the wear on of a piece of equipment can be considered when determining exactly when maintenance needs to take place.

"One parameter might tick down quicker than another parameter based on how it's being operated," Poulsen says. "That will also trigger things like an email alert."

Mahjoub points to improved safety and security as a key application of telematics as speeding, parking violations and vehicle access control can be monitored.

"Also, allocation of GSE equipment can be optimized considering the various missions scheduled for the day vis-a-vis state-of-charge of the battery or pending maintenance," he says.

"Telematics enable efficient opportunity charging in between missions, which is a key for electrification of ramp motorized GSE," Mahjoub continues. "Another benefit

Photos courtesy of TLD

may come from better fleet utilization and lower cost of ownership through pooling across various operators. There are many other use cases."

During the warranty period, JBT representatives use iOPS to access data remotely and walk customers through troubleshooting and repairs.

"We can actually look at the state of the equipment prior to sending a field service engineer out and have an indication of what the real issue is," Poulsen says.

Beyond warranty claims, remote access to data offers benefits related to ramp operation safety, fleet supervision, operation management and tele-diagnosis, according to Mahjoub.

"Monitoring vehicle speed on the ramp, as simple as it sounds, is an effective way of preventing accidents, reducing human injuries and aircraft damage. Obviously, the geo-localization of a unit at any point in time allows, as well, a much leaner operation all around, reducing downtime and unit transit time between operating zones on the airport," says Mahjoub.

For the purposes of fleet management, reports are generated daily. Poulsen says this allows people who may not need to look at the dashboard to still have information about the status of equipment, allowing for high-level asset management.

This information can help with staging equipment to ensure on-time departures, reduce movements and lower environmental impacts. All of these factors can be applied to improve efficiencies.

For example, Poulsen notes that while passenger traffic has declined during the pandemic, freight airlines have seen an increase in throughput.

"In all those cases, through iOPS, we've been able to help them increase their efficiency on the ground. The efficiency goes beyond just managing the state of the equipment. It has more to do with what information it provides them about their own operation," Poulsen says.

Similarly, Mahjoub notes that data collected by Link has a broad purpose and is widely used at many airports – both large and small – by airport authorities, airlines, ground handlers and GSE leasing companies.

Given the positive impact on GSE, additional improvements to data collection and its application to ground handling operations can be expected to continue.

"As we go along, we're finding that data that you didn't expect to have an impact on certain parts of an operation, actually does," Poulsen says. "That's the big thing in general – using data in the right way that's going to be helpful." **GSW**

Photo courtesy of UAS

Ground Handling's Virtual Classroom

Online learning has developed exponentially during the pandemic, which has proven beneficial in areas like Central and South America.

By Mario Pierobon

Online learning as a ground handling training delivery mode has evolved significantly as a consequence of the global COVID-19 pandemic. There are now different uses of online learning compared to what was in use before the pandemic.

According to Ricardo Miguel, president of Brazil's ABESATA, one of the biggest challenges resulting from the pandemic was to ensure compliance with the annual training programs, with priority given to regulatory instruction aspects.

"It was necessary to assess the risk of providing online training at 100 percent. Risk assessing, considering several variables such as internet access, computer/cell phone/tablet accessibility, use of the online teaching platform, technological learning and other aspects, we concluded that we would have to rethink the training process in order for it to become effective with both synchronous and asynchronous online learning," he says.

Becoming Standard

Henry "Duke" LeDuc, regional operations director at UAS, observes that, in general, prior to COVID-19, online learning was not very prevalent.

"We primarily utilized in-person meetings for training. We have used training more effectively with the online learning. We have used the typical platforms for virtual communication, i.e., Teams, Zoom, etc. The trainings are recorded and a live question-and-answer is available. We have also adopted video training modules and a dedicated training syllabus," he says.

During the pandemic, in several ABESATA member companies, the development of online learning was exponential, according to Miguel.

"This was due to the educational quality of the training contents and to the educational strategies adopted by the instructors in the different stages of synchronous training and in the preparation of asynchronous training to verify learning," he says. "Before the pandemic, online training had mainly a complementary role, in particular for information transfer. Today, the methodology is used in around 70 percent of internal training, including training due to technological evolution and development

of our human capital in a digital platform environment."

Benefits of Online Learning

According to LeDuc, online learning has made it possible to provide more training accessibility to people on various shifts.

"It has also made it more cost–effective and allows the trainees to review a second or third time if needed. This helps the trainee progress at their own pace," he says.

Miguel observes that as per capita income in Latin America is lower than in Europe and North America, the ground service providers' charges are also lower.

"As a result, investment in training for air transport tends to follow this pattern. With the arrival of the pandemic and the intense use of the online platform, everything was leveled and the learning process in Latin America gained as a result," Miguel says.

The main challenge of online training is to guarantee the participation and assimilation of learning in a virtual environment, according to Miguel.

"In fact, trainees can easily lose interest and even without the proper controls, they may not even participate. As a great benefit, it is worth pointing out the reduction of costs associated with renting rooms and multimedia tools such as audio/visual aids as a component of the investment in training," he says.

Miguel observes that, in general, in Central and South America during the pandemic, there were mostly online classes with a PowerPoint presentation and the instructor broadcasting the slides or animated presentations without a facilitator involved in the stages of verification and application of knowledge.

"However, it is noteworthy that the pandemic constraints that marked this situation led this region of the world to invest in practical training through simulators, with situations very close to reality, which allowed, for example, to train equipment operators in a virtual environment," he says. "The major beneficiaries of online learning are the trainees, as they now have advanced techniques, with well–developed resources and learning tools."

Training Topics

UAS has taken each of the most critical tasks and ensured the processes have been documented in a standard format and that there is an accompanying video, per LeDuc.

"This library of processes is available to the team via a searchable intranet," he says.

According to Miguel, most aircraft ground handling training topics can be covered in online learning.

"In the vast majority of GSPs in Brazil, for example, the courses which technically train employees and are mandatory for the performance of functions are almost all

taught in a synchronous online environment, with the presence of an instructor. These include courses in integration, operations in adverse weather conditions, airside safety, security and dangerous goods," he says. "In addition, the training and qualification courses for functions such as passenger service agent, ramp assistant and ramp operations supervisor, also have a face-to-face practical component and assessment through on-job learning and assessment on top of the online synchronous component."

Many of the courses that specialize an employee in a certain area, or which complement technical training, are taught to be delivered online, affirms Miguel.

"Internally, some courses have been taught completely online, namely safety management system (SMS), ISAGO for aircraft assistance service providers and training for e-instructors on eLearning," he says. "The courses with a behavioral component that aim to raise awareness and promote safety are now completely taught in an online environment, either synchronous or asynchronous. These include human factors and crew resource management (CRM), leadership and safety management."

Challenges of an Online Learning Program

In order to qualify for an aircraft ground handling function, the physical/in-person environment is conducive to training, since knowledge of the space where the activity will be developed and the tools to be used in carrying out the tasks is of valuable importance, observes Miguel.

"Among the major challenges of an online learning program, we identified the restructuring of course programs, including the workload and the teaching methodology," Miguel says.

"In a virtual environment, interaction and motivation techniques to foster group dynamics are completely different from those used in face-to-face learning, and the training of instructors requires that they be prepared for changes in behavior in the face of the virtual teaching model. Finally, there was also a restructuring of the assessment of learning," he adds.

LeDuc believes limited personal interaction is the biggest barrier in the implementation of online learning programs.

"The majority of the communication is non-verbal, and this can be missed in a virtual setting. We ask that the camera be on during training sessions and that the team members give their full attention

Photo courtesy of ABESATA

THE ACCELERATION OF DIGITALIZATION

By Mario Pierobon

From an institutional point of view, the pandemic accelerated the capacity for exchanging information between companies and various authorities with much greater agility, according to ABESATA's president Ricardo Miguel.

"People who previously had difficulty participating in meetings and training, only held in person, were able to get involved much more and this brought significant gains," he says.

The acceleration of digitalization also led to the acceleration of an old demand in the sector – the creation of a certification of regularity for companies in the ground handling segment, points out Miguel.

"The certification provides a distinction to those companies that actually invest in qualification and training with a sustainable business plan to place themselves on the market," he says. "In Brazil, the seal will be launched in early 2022 and is being titled CRES (Certificate of Regularity in Auxiliary Services to Air Transport). Service users, whether they are airlines or aerodrome operators, will now have a reference."

in the meeting," he says. "Additionally, one has much greater engagement from the team when there is buy–in from the trainees. The organization must believe in the need for the training and communicate the benefits of training to the individual team members."

In order to overcome the difficulties of implementing the transformation of face–to–face teaching into virtual teaching, there has to be a good management of change.

"Change management should focus on the main vectors that the change entails, on the identification and scope of change, on the evaluation of the impact of the changes in the training process, on carrying out a risk analysis to identify the susceptibilities that may compromise the effectiveness of teaching, and on the implementation of an action plan and communication as a cat–alyst for this entire process," Miguel says. "Based on these assumptions, the imple–mentation of online education becomes easier and more effective. Consequently, ground handling organizations should bet on the training of instructors and the choice of a training support platform that is adequate to the needs and dynamization of training actions.

"In order to consolidate training in a virtual environment, it is necessary to monitor and periodically evaluate the training performance in order to make the necessary adjustments and thus over–come the great challenges that training in a virtual environment provides," concludes Miguel. **GSW**

Photo courtesy of ABESATA

ABOUT THE AUTHOR:

Dr. Mario Pierobon provides solutions in the areas of documentation, training and consulting to organizations operating in safety sensitive industries. He has conducted a doctoral research project investigating aircraft ground handling safety. He may be reached at mariopierobon@az-all-in-one.com.

Getty Images

WHAT AIR CARGO NEEDS FROM AIRPORTS

With the demand for airfreight booming, cargo operators are looking to expand and airports want to attract them, but both need to work together to capitalize on the opportunity.

By Walker Jaroch

Airfreight and the cargo industry are booming. Driven by an increasingly digital and online-based consumer culture, fueled even further by the consequences of the COVID-19 pandemic, there looks to be no slowdown in sight for air cargo demand.

The growth in demand is prompting cargo operators to look for and expand into new airports, with airports, too, asking what they can do to bring in the new business. However, it's not as simple as flying to the local airport with a hull full of porch-bound-packages. There's a myriad of factors freight forwarders consider for doing business.

Brandon Fried, executive director of the Airforwarders Association, said that many cargo carriers operate on a hub and spoke system – which he describes as "a finely timed ballet."

"Many cargo carriers are dependent upon hub and spoke systems so that they have to be able to meet their obligation at that hub for the sorting process each evening. In order to do that – that's a finley timed ballet – that requires precision timing. So, getting out of the origin airport that's being considered is a big deal," Fried says.

Ease of use will always be the most critical factor for an operator looking at prospective airports – how quickly and efficiently can their operation be performed? Under that umbrella fall considerations such as market conditions in an area, demand, geography and weather, among others.

Decisions are nuanced, with no one-size-fits-all model available. Operators may choose an airport located outside of a major metropolitan area if it proves beneficial in other aspects. For example, despite being more than 65 miles away from the city, the Chicago Rockford International Airport has a substantial UPS presence, due in part to the ease of getting in and out compared to a larger, busier airport such as Chicago's O'Hare International Airport, Fried explains.

"There are a lot of factors that go into this. From a freight forwarder's perspective, that company may set up an office and warehouse. They're going to look at the number of flights that are available

from that airport. They're going to look at real estate costs. They're going to look at the city, the metropolitan area and whether it will support the type of business it wants to pursue," he says.

"And of course, again, ease of use and working in that city. Most freight forwarders have operations at the major gateway airports because that's where the business is," Fried adds.

Cargo Considerations

After a destination has been selected, there are still considerations to be considered, from what kind of plane will be flying into the airport, to what cargo it will carry and if the equipment to unload it is available.

"They want to make sure that particular aircraft type can be supported. I'll give you an example, the loading of a 747, a large plane with a nose loader where the nose opens up, will be different than a smaller 737 aircraft. You're going to need different types of lifts. You're going to need different types of equipment that can load large items into that plane," Fried says.

On the other hand, passenger planes that have been dedicated to freight – a trend that took off throughout the COVID-19 pandemic – require entirely different schemes to load and unload. With boxes strapped into passenger seats, it's a labor-intensive operation, with numerous workers inside the aircraft – passing boxes to each other, often in a bucket brigade manner.

"Do you have a roller system in place to put it inside the cabin to move the boxes along quicker? How are you going to get the boxes down to the tarmac? Do you have a chute system? Are you throwing from one worker down to another or are you using a scissor lift platform? These are all nitty-gritty details that you have to have figured out beforehand," Fried says.

Cargo operators will therefore need to make arrangements with a ground service provider to secure the necessary equipment and manpower to meet their needs.

Fuel is another factor. Adequate fueling facilities and fueling equipment are a must to make sure planes are turned around as quickly as possible. As Fried states, a plane that isn't flying isn't making money.

"I have to get back to my hub in a timely fashion to meet my commitment there. There can be no delay. So, I'm going to look at the processes and procedures that you have in place to make sure that you can turn my airplane quickly," Fried continues.

Airport Aspects

For airports looking to attract cargo carriers, Fried said they first need to have the infrastructure.

"You need to have easy access, road access, maybe they'll look at major highways, they'll look at the road access within your facility," he says. "Can you warehouse my freight when it arrives until I come to pick it up? Can

you store my shipment in a warehouse before it departs? That's another consideration.

"And of course, as an airline coming in, I want to make sure you have adequate runway length. I want to make sure you have the appropriate landing systems in place to guide my planes in during harsh weather," Fried adds.

Fried says having a warehouse on site may not be as important, but then they'll be looking at a trucking service to bring freight to and from an airport – which will require ease of access to roads.

Getty Images

"Not all freight forwarders need to have warehouses. What they do need to have, however, is a trucker that works for them that has an available warehouse facility," Fried explains.

For larger operators, a warehouse will be crucial, and is why they tend to focus on gateway airports.

"Why we focus on the gateway is that to economize the more cargo you give an airline, generally speaking, the lower cost per pound it is for your shipment. So that gives you the ability to use wide-body flights and the use of containerization that might not be available from all airports. So, you'll feed everything through a gateway for efficiency," Fried adds.

However, Fried notes that warehouse space faces "severe" shortage across the country due to the increase in online order demands.

"There's just not enough warehouse space to store the goods. So, if you're a freight forwarder looking for an office and warehouse that's probably going to be challenging for the time being. So, the process is going to take a lot longer. Most of the existing freight forwarders that have been around for a long time already have a presence in these markets, and they're already set up, but for a new freight forwarder that may not be the case," Fried says.

The warehouse shortage returns then to the issue of trucking which again leads to ease of access; how quickly and efficiently can cargo be moved into and out of the airport?

"Let's use JFK as an example. The road system in and around JFK is antiquated. There hasn't been a lot of investment in the cargo infrastructure at that airport, so if you have established a warehouse presence around JFK, you're going to have to consider ease of use to the airport facility itself. How long will your trucks be stuck in traffic? How long will they be queuing at terminals to drop or pick up cargo? Those are big concerns," Fried says.

Fried adds that freight forwarders have been fighting the airport congestion issue for "quite some time."

"The cargo infrastructure at the major gateway airports has not been touched in 40–50 years. And so obviously that is going to have an impact on road structure and access for years to come and it must be looked at," he continues.

Therefore, airports looking to bring in a cargo carrier should allocate funding to modernize infrastructure to increase the ease of use for cargo. But if that's not a possibility, upgrades to technology can also help. Fried suggests thinking outside of the box.

"Perhaps we need to be employing more automation in terms of appointment setting for the trucks, so that they don't show up when the freight's not ready for pickup and that there's some type of an automated, virtual cargo community, which there is now starting at several airports," Fried says.

Communicate for the Future

Once a cargo operation is established at an airport, Fried says communication between all parties is the difference between a long-lasting relationship and a short one.

"Communication is essential, and so is frequent engagement. We've been having town hall meetings during normal times, and since COVID, we've done a few virtually. Still, before the pandemic, we were traveling throughout the country to places like Seattle, Los Angeles, Boston, New York and Chicago. And we were holding town hall meetings to discuss challenges and suggestions with airport managers, and they were at the table at each city," Fried points out.

In addition, each year, the Airforwarders Association holds their AirCargo Conference, with the Airports Council International-North America and the Air & Expedited Motor Carriers as partners.

"We bring the cargo managers of the airports in because they realize that having freight flowing in and out of their airport is essential to that city's local commerce. ... The reality is that companies want to locate in cities with frequent air service. So, they can get products out into the market as quickly as possible and receive products from overseas. And, when we engage with the airport managers, they tell us, 'We want you to use our airport as much as possible because we realize that it supports a vibrant commercial environment,'" says Fried.

Conversations generally revolve around airport road access, facility development and how to limit congestion, but also how to limit the impact of areas neither party may have control over.

"These include the labor market, the ground handlers, those in the warehouse that are preparing the freight for departure and, of course, arrival. They're having struggles themselves with getting workers, and that's backing up the trucks as a result. So, it's a tremendous concern, and the airport managers realize it, so they've been working with us," Fried says.

And if the struggles can be overcome, Fried says the future looks bright for both cargo operators and airports.

"From a long-term perspective, if I were advising the airport, I would say in your long-term planning, make sure that you accommodate excessive or spiked demands for air cargo along the lines of what we're currently seeing. I think that we're going to see these volumes well into 2022, if not into 2023 because there are still close to a hundred ships parked off the coast of the port of Los Angeles," he says.

"And as long as we're seeing that, air-freight is going to continue to be operating at a very high level because there are too many shippers right now that are overflying that maritime bottleneck and using air cargo as their salvation to get products to market," Fried continues. "We've seen ocean carriers now getting into airfreight. For example, last week, a European ocean carrier just committed to three air freighters, and they're traditionally a maritime operator. Still, they see the opportunities in air freight, so they're making a bet that it's here to stay for a while." **GSW**

Make Air Cargo a Priority for Smaller Regional Airports

By Mike Dunn

Between an e-commerce boom, supply chain shortages and intense consumer demand, there's little doubt: It's a new era for the cargo freight industry.

During 2020, consumers became accustomed to – even thrived on – online shopping. Retailers big and small responded by pivoting their attention toward e-commerce. And with little evidence that those trends will ever shift back to the way they were before, the freight marketplace is ripe with opportunity.

Chicago Rockford International Airport (RFD) is an ideal location for packages to arrive in the Midwest before being dispersed throughout North America.

To that end, RFD handles up to 40 UPS flights daily on average and is one of Amazon's five busiest air hubs. It didn't come to fruition by happenstance, but through careful vision-casting and infrastructure investment.

Chicago Rockford International Airport

▲ *RFD's wait time is lower for both airplanes and trucks, keeping cargo moving into the hands of businesses and consumers far more quickly.*

Seizing the Day as a Small Airport

RFD is far from a newcomer in the cargo market. Air freight has been a core component of the airport's strategic growth plan for decades, as it maximized its opportunities as a regional airport on the outskirts of a major metropolitan area.

RFD's cargo footprint began even before e-commerce did. Its first major deal happened in the early 1990s, when UPS struck a deal with Wisconsin-based Lands' End. UPS saw the marriage of many factors here: easy interstate access, a central location, inexpensive land for development, and the ability to get wheels up quickly at all times of the day or night.

The shipping carrier found that moving freight in and out of RFD was hassle-free and fast. So, RFD's relationship with UPS grew over the years, with the airport eventually becoming the second-largest UPS hub in all of North America.

With e-commerce growing over the past decade, leaders at RFD knew the time was right for strategic investment in the cargo side of their business. The RFD team approved a $17 million ramp expansion, an Amazon facility expansion and a new $50 million International Cargo Facility.

The airport as among the first in the country to establish itself as an Amazon Air gateway, when Amazon first launched its own cargo freight flights in 2016. This investment, along with investments made for UPS as well as international cargo flights, contributed to Chicago Rockford International Airport being named by Airports Council International as the fastest-growing cargo airport in the world among those handling at least 250,000 metric tons of freight each year.

Business continued to grow by the time the calendar changed to 2020.

RFD executives were pushing hard for new opportunities, particularly in the international market and in just the first quarter of 2020, RFD

Photos courtesy of Chicago Rockford International Airport

Air freight has been a core component of RFD's strategic growth plan for decades, as it maximized its opportunities as a regional airport on the outskirts of a major metropolitan area.

saw a 30 percent increase in landed weight from the previous year.

Taking Advantage of a Regional Airport's Assets

At RFD, carriers experience the same access to the Chicago metropolitan area – but with far less congestion. One of the world's busiest airports is less than 70 miles away, but its vectored approaches, long taxi times and considerable ground holding result in slower cargo recovery speeds.

Simply put, RFD's size and location allow cargo to be moved more efficiently.

RFD's wait time is lower for both airplanes and trucks, keeping cargo moving into the hands of businesses and consumers far more quickly. It also is just minutes away from multiple state and federal highways, allowing cargo to be on its way to locations throughout North America.

But it's not just location setting the stage for success in Rockford. Airfreight operations take up a large footprint of the real estate for an airport – real estate that's already limited at land-locked, metropolitan airports. RFD has ample room to grow in a way that can accommodate warehousing, storage and trucking needs for years to come.

RFD completed a 90,000-square-foot facility as part of the International Cargo Facility to meet the needs of freight forwarders and air cargo airlines. Additional plans are in the works, as well, to support future growth.

That's because international freight is the fastest-growing sector at RFD, consisting of up to 20 percent of its total cargo business. At present, RFD handles freight levels that are comparable to what it was like during the holiday seasons in years' past.

▲ *At RFD, carriers experience the same access to the Chicago metropolitan area – but with far less congestion.*

As all businesses know, success comes from more than brick and mortar. It's about people. While employers nationwide are experiencing staffing challenges, RFD has a long history of supporting training for both cargo handlers and aviation mechanics – key components to cargo freight success. Another major factor comes from the expertise that RFD has poured into its local supply chain. RFD leaders have never wanted the airport to simply be a place where carriers do business and then go on their way. Airport officials are invested in their carriers' success. They do more than simply provide a runway for aircraft to land and take off.

Rather, RFD offers expertise in helping freight airlines and forwarders move their product efficiently on the ground. Officials coordinate trucking, warehousing and material handling as integral parts of the supply chain. Airport leaders have long made a point of anticipating market shifts to stay a step ahead of its customers' needs.

With its intentional blend of cargo air freight and passenger service, RFD offers a case study for other regional airports in the benefits of diversification. The two different service lines help the airport withstand economic swings and even prosper when others struggle.

Successful cargo operations rely on long-term vision casting. It's about looking beyond the next 12 months at a longer term, bigger picture. Opportunities abound for regional airports, particularly those near major metro areas, to excel in the air cargo and logistics arena.

All it takes is solid infrastructure, the right location, and a whole lot of sweat equity. **GSW**

▶ ABOUT THE AUTHOR:

Mike Dunn, as executive director for the Chicago Rockford International Airport (RFD), is responsible for securing opportunities for the growth of the airport through additional cargo and passenger business as well as work with government officials to secure grants and additional support and advocacy.

An External Resource for Handling Large Events

Jet Event Technologies provides consultant services for FBOs welcoming increased traffic around special occasions.

By Josh Smith

When a city hosts large-scale events – the Super Bowl, the Final Four, golf tournaments, music festivals, etc. – an influx of business aviation travel can often be expected. With additional traffic drawn to specific locations, it can mean big business for FBOs.

But if a smaller, independent FBO isn't properly prepared to handle an event or views the situation as too much work without enough payoff, revenue can be left on the table.

What's worse, if the correct amount of effort isn't put forth by the FBO, it can have a negative effect on the customer and potentially reflect poorly on the FBO, the host city or the event itself.

With first-hand experience organizing event traffic, managing partners Brian Bourbeau and Jenn Swenson established Jet Event Technologies (JET) to help guide FBOs through the process.

"We want to provide support and logistics for FBOs that struggle with doing this in the industry. Events is a tough area to handle for small, independent FBOs," says Bourbeau, who established JET with Swenson in September 2020. "Our goal is to increase the level of service and make it an efficient operation."

JET's first contract was with Burrows Aviation in Sheboygan, Wis., to provide ground operations ahead of and during the Ryder Cup at Whistling Straits Golf Course. The company has signed on to assist Augusta Regional with The Masters golf tournament and is now bidding to work upcoming events, including the Super Bowl and others such as NASCAR events and more PGA golf tournaments.

"There's a vast opportunity with FBOs," Swenson says, noting that while large FBOs have a corporate structure and culture, smaller locations may need additional assistance.

"There's a lot of pen-to-paper, and there's a lot of old-school approaches," she adds.

In cities where FBOs may not have much competition, Swenson says asking simple questions about structures, processing fees, fuel options, etc., can help stations address important needs prior to an event.

"That's where we have expertise beyond just running large-scale events," Swenson says.

Experience with Events

Bourbeau has traveled to work with other crews at events. Through Avfuel's network, he took on work at Augusta Regional Airport when the location was seeking extra line staff for The Masters golf tournament.

"I signed up," Bourbeau says, of his first event. "The way I looked at it, it was a chance to see another operation. Anytime I've traveled, I've always wanted to see how things are ran to see what I can bring back to my team. That was my first goal."

Bourbeau returned to Augusta in subsequent years and frequently discussed event operations with Kenneth Hinkle, Augusta's airport director.

Bourbeau, who previously worked with Premier Jet Center at Flying Cloud Airport (KFCM) in Minnesota, created a playbook and developed his expertise with events by overseeing operations around the 2016 Ryder Cup, the 2018 Super Bowl and the 2019 NCAA Basketball Final Four – all held in the Minneapolis area.

Bourbeau says the key is to increase profits for the FBO so that money can be reinvested in improving operations.

Swenson and Bourbeau are the only full-time employees at JET, so relying on contracted line service technicians and customer service representatives (CSRs) is critical.

Through connections made as a contracted line tech at events, himself, Bourbeau has established a reliable network of personnel to help him run events with Jet Event Technologies.

"Our job is to come in and say, 'We're going to provide 10 line techs or 10 CSRs.' That's the product we're delivering," Bourbeau says.

"These are guys we've vetted," he continues. "I know exactly how they work. They know me. They can come into any airport, and they can work an event."

"When you start to align yourself with professional FBO operators, ground personnel or whatever it is, there is that professional line. With their quality and experience, they can be plugged in anywhere," Swenson adds. "But you need to get with the right professional crew."

It's imperative, explains Bourbeau, that contracted personnel run safe operations and move aircraft carefully because of the negative impact and associated costs incurred by ground damage.

"If we have one incident, it ruins the whole week," he says.

"A lot of times, people start cutting corners because they feel like they're getting behind and they feel pressure," Bourbeau continues. "The human factors start playing into it. We want to try to limit those and say, 'No matter how busy you get, this is the process, and this is how we're going to do it.'"

JET works hand in hand with an FBO owner to evaluate how local line techs operate and identify their in-house standard safety practices to determine if any additional safety procedures are required to run the event.

In addition to operating safely, customer service is a key focus as well. Swenson notes that JET can assist with this by communicating directly with passengers, pilots and the airport commission on behalf of an FBO.

"How can we be the liaison for different people and what does that scope of work look like?" she says. "We can make safe, efficient decisions that are customer-focused. Being able to blend those two are super important."

To ensure customer-facing responsibilities are handled correctly, Swenson focuses on point-of-sale and concierge software, which she says can look radically different from one FBO to another – and at times can be outdated.

"Brian and the guys need to know what flights are coming in, where are we at and what services are needed. So, a binder with a piece of paper isn't going to be sufficient," she says.

What's more, providing an FBO with the appropriate software is an opportunity to cross-reference from an invoicing perspective to ensure paperwork is organized correctly.

"Ultimately, we can have a great experience and keep them safe. But when you screw up their invoice, people aren't happy," says Swenson, who also oversees flight tracking and additional communication responsibilities.

Different Dynamics

Every event varies in terms of when arrivals and departures are expected.

"Final Four events – those are lot more small- and mid-size cabin aircraft," Bourbeau says. "Super Bowl is the who's who of the United States, so every big, A-list celebrity is flying in on the biggest jet possible. So, it's a lot of large-cabin aircraft.

"When we look at events, we look at that event in the previous cities and we're breaking it down and saying this is the percentage of small-cabin, this is the percentage of mid-size," he continues. "So, when we're looking at an airport and we're planning the ramp, do we need to plan for 70 percent Gulfstreams, or do we need to plan for 70 percent King Airs and Citations? Because that's going to change your footprint and your dynamic of how you can park things."

And even with best laid plans, the ability to adjust is paramount.

"If it's something where people are waiting to see who's playing – like the Super Bowl – nobody is going to call you and make a reservation," Swenson says. "A lot of people aren't 100 percent sure they're going until they know who the teams are. It can be a lot more last-minute with that."

While changes are to be expected, Swenson still emphasizes the importance of preparing in advance, whenever possible.

"I want our customers, before they come in, to feel like they know what's going on," she says. "You can get bogged down when you have two CSRs that are trying to run a regular ramp operation and deal with all the incoming calls, traffic and changes."

Wearing Many Hats

Much work is required before, during and after an event.

"The two of us work a lot on getting everything staged and set up – all of our staff hotels,

transportation, rental cars, logistics for that. Jenn is focused on creating relationships with catering companies, rental car companies, transportation companies – all the companies that are going to support us," Bourbeau says.

Bourbeau's prep work centers around ground support equipment and staffing needs.

"When we're planning equipment, we start with figuring out our staffing level. Once we have our staffing level, then I figure out with how much staff I have, how many flights an hour can I work?" Bourbeau says.

"My work then becomes the week of the event," he continues. "Running the ramp and getting as many aircraft on the ground and on the pavement as safe as possible, that's where I become busy on my side of the planning."

The event itself is a fast-paced, busy period of time, requiring JET's team to move from task to task to ensure safety and customer service requirements are met.

"It's a constant juggle of making sure you're triaging where the attention is needed," Bourbeau says.

Added Assistance

While an event can consume the full attention of JET's team, without the additional resources they provide, it could be overwhelming for an underprepared FBO.

"The more vendors we talk to, the more FBOs we talk to, they have no idea this type of business even exists," Swenson says. "So, we wanted to have a product vast enough so we can cast a wide net and see where people need support. We bring really different areas of expertise to it, so we kind of navigate into different FBOs and say, 'We can help you solve this problem, not just events.'

"We really like events because it is an area that people just fundamentally have no idea how to run. If you have one event every four years, why or how would anyone know how to do that?" she notes. "There's a lot that goes into it." GSW

Detecting and Mitigating Fuel Leaks with Technology

Small, portable and quick, the Atmos Portable Tightness Monitor verifies the integrity of airport hydrant systems in as little as 15 minutes.

By Walker Jaroch

With lengthy and complex airport hydrant systems, detecting fuel leaks and other instabilities might seem like a daunting dilemma. On top of that, an airport that never sleeps doesn't necessarily have the ability to shut down their fuel lines for inspection when planes are taking off nearly every hour.

Dean Golba, head of aviation at Atmos International, says a better way to approach the issue is by thinking in terms of mitigation rather than prevention.

"We can't prevent leaks, and trying to prevent leaks is pretty much impossible, but mitigating the effects of leaks is the key," Golba says. "Mitigation through regular testing is one way of doing things. The United States Environmental Protection Agency (US EPA) highlights this in the sense that they change the minimum detectable leak sizes based on how regularly you test. So, if you test annually, it's going to be a certain size of leak that you must detect. If you test biannually, then the size of leak slightly increases and it allows you for a little bit more leeway."

All photos courtesy of Atmos International

Founded in 1995, Atmos has been developing leak detection technologies for use wherever pipelines are found.

"Oil, gas, chemical, water, aviation and mining industries, anything that has a pipeline involved we can work with it. We can detect leaks, simulate pipelines and apply various technologies," Golba says, adding that Atmos technologies have been applied to more than 1,500 pipelines globally in 60 different countries.

Challenges with Leak Detection on Airport Hydrant Systems

Airport hydrant systems are unique among the other pipeline systems that Atmos works with. Golba says that, for example, a cross country pipeline leak detection system works on the basic principle that what goes into the pipeline must come out of the pipeline and this is always metered, be it with a various number of inlets and outlets. Hydrant systems, however, have many pit valves/refueling points, and it would be very expensive to meter each and every one of those pit valves in order to apply a flow balance–based leak detection system.

"What's going in isn't typically measured by custody transfer flow meters. How much fuel is then pumped into an aircraft is metered, however this is done locally on a hydrant dispenser or fuel cart, for the purpose of the aircraft and is not useful in any way in terms of providing leak detection. Those numbers are never really challenged against each other in a way that could provide highly accurate leak detection," Golba says.

What that means is that commonly used technologies across other industries can't be applied to aviation, resulting in much more specific test-oriented products being developed for use at airports.

Tightness Monitoring Development by Atmos

"Over the years we've developed an advanced system that specifically tests aviation hydrant systems by monitoring the pressure under various conditions. And the way we do that is to shut the hydrant system in. So, we lock the pressure into the pipeline, and test over a period of time. This was originally a 45-minute period, but we have now been able to reduce that down to only 15 minutes," Golba

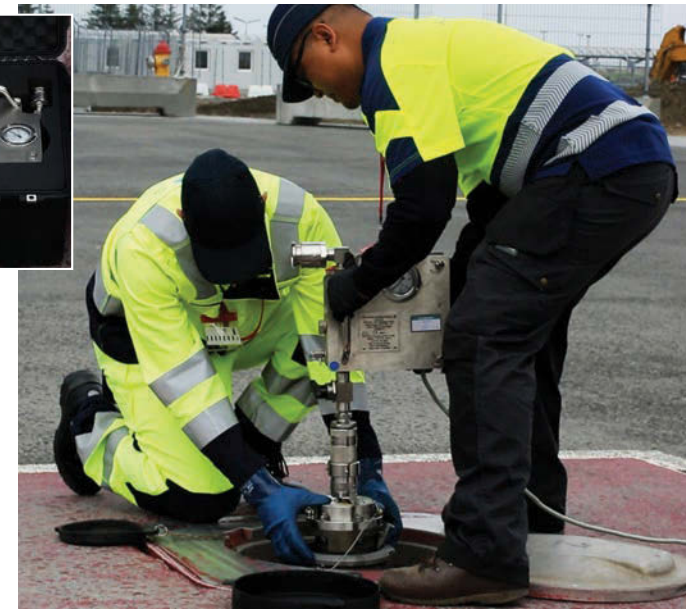
says. "After that 15 minutes, we can then tell you whether there is a leak on the pipeline or not. The size of that leak can be very small."

Golba says that while more and more airports are using an automation system (SCADA) that controls the hydrant, this has historically not been the case – especially in North America, where many hydrant systems were built before such technology existed. For hydrants lacking in automation, it's very difficult to install a leak detection system without investing in a SCADA system, thus a standalone and portable solution was devised.

"It's called the Atmos Portable Tightness Monitor (APTM). The system has been developed for airports that don't have any level of automation, specifically smaller airports or older airports, airports that typically wouldn't have the budget to put an automation system with leak detection on the pipeline," Golba says.

"However, it became increasingly obvious in certain areas around the world that a portable system was actually a much more attractive proposition."

If a SCADA system is in use on the hydrant, the Atmos Tightness Monitor would offer a solution as this communicates with the SCADA directly and works hand in hand. Both products utilize the same algorithms enabling the accurate detection of very small leaks.



How It Works

Golba says that a key feature of the APTM is the short time it needs to run its tests, now at 15 minutes.

"Testing time has always been a difficulty, there's a lot of airports around the world that operate 24 hours a day, seven days a week. For example, there are various airports in India that do not shut down and do not have curfew hours. Finding a 45–minute window for us to test is practically impossible in some locations. So, having reduced the testing time down to 15 minutes over the past couple of years, has really improved the ability to conduct these tests on hydrant systems," he says.

The APTM uses the pressure step method, which works by testing a hydrant system at two pressure thresholds. First at its operational pressure, for example 170 PSI, and then after depressurizing, at a lower pressure, for example 100 PSI. Running the test at different pressure levels helps to negate the effects temperature can have on a test – such as falling pressure levels due to falling temperatures.

"The benefit of the pressure step method is that we're giving the customer a much more reliable result, a more repeatable result and also providing higher levels of accuracy," Golba says.

Each APTM is calibrated and fine–tuned for the airport it is to be utilized by.

"We commission the system and tune it for each and every individual segment on a hydrant system. And that's how we get the best performance out of the system," Golba says.

The APTM is small enough to fit into the trunk of a car or bed of a truck, making for easy transportation around the airport apron and does not require multiple people to operate or transport the system.

"The system itself is provided in two PeliTM cases, with the first containing a computer unit and the second the APTM depressurization manifold. The only other thing required is a support vehicle with a 12v DC outlet to power the system," says Golba.

Maintenance and Support

An APTM can be supplied with annual support and maintenance coming in the form of Atmos Aviation Care. Under this contract, all data is collected, transmitted to the Atmos Cloud and analyzed by Atmos engineers enabled by 4G communications built into it.

"Through Atmos Aviation Care, we can support the customers, often live, while they're doing the testing and in the event that they have any concerns over the data, we can almost instantly confirm whether the results are of any concern, whether we think there may be a passing valve on the hydrant system that needs to be investigated or maybe there's something else happening," Golba says.

The visibility ensures tests are being performed correctly as Atmos engineers can view the process remotely as it is performed.

"If we see any drift in the data, we can investigate that. We can look at it instantly and we can respond to the customers, ensuring that again, the system is doing what it should be doing and that we can trust the results," Golba says.

"To support our customers, we also provide access to our online training platform, which contains videos, tests and certificates to ensure all operators using the Atmos systems are trained to the required standard."

Airport hydrant system leaks can have serious consequences such as damage to the environment and lost revenue due to downtime of fueling operations. Atmos' tightness monitoring systems give operators the ability to test their hydrant system's integrity to detect and mitigate leaks within 15 minutes. **GSW**

FUEL CART STD-FC-550 DIESEL/GASOLINE

Aeroservicios USA Inc.

This double-wall tank can be configured with diesel or gasoline. Features include a tank capacity of 550 gallons and a heavy duty steel tank with a powder coat finish. The double-wall tank is UL certified. It offers a low profile and a hot dip-galvanized chassis. It also has a 15 GPM solar-powered pump, pipe for the updraft vent, heavy duty fifth-wheel steering, a safe-drop tow-bar, hubs and solid tires (4.00-8 standard). It features a level and leak gauge, and static grounding reel. It offers safety components such as two 10-pound fire extinguishers, a fuel hose with a safety fuel nozzle and nozzle holder, spill container and fill cap and safety relief vents. Additionally, there is a TIMBREN suspension system with rubber spring technology and anti-overturning axels (Non-cod UN31A/Y/ or DOT 406). The fuel cart also offers solar panels.

www.AviationPros.com/21154950

NEW AND USED REFUELING EQUIPMENT

ProFlo Industries, A PrimeFlight Company

ProFlo Industries has a complete inventory of new and used refueling equipment, including Avgas refuelers, Jet refuelers, hydrant dispensers and carts as well as gasoline and diesel dispensing equipment.

www.AviationPros.com/21158223

10,000 GALLON JET REFUELER

SkyMark Refuelers

The SkyMark 10,000 Gallon Jet Refueler features a stainless steel tank with an 800 GPM pumping system. The 10,000 Gallon Jet Refueler also features a front-mounted lift deck with dual fueling hoses and a special purpose airport chassis with rear engine.

www.AviationPros.com/12277156

WATER BARRIER FILTERS

Parker Velcon

Parker Velcon's Water Barrier Filters serve as allies in the battle against water in aviation fuel. CDF-X and ACO-X filters block water before the aircraft without using SAP. CDF-X is qualified to EI-1588 and is a direct drop-in replacement for all 2" SAP monitor cartridges. ACO-X filters are designed for the company's VF-61, VF-62 and VF-609 filter housings and similar competitors' housings. ACO-X meets the effluent fuel quality and structural requirements of EI-1588. There are no additional parts required to install, no piping changes and no operational changes. Additionally, Parker Velcon's new WIF (Water In Fuel) is a simple, accurate, precise, affordable and reliable solution for water detection. WIF is designed to meet EI-1598 Specifications for electronic sensors used to monitor fuel contamination. WIF uses light scattering principles and is calibrated to detect the presence of free water in fuel from 0 to 50 ppm.

www.AviationPros.com/21233942

TCS 3000 ELECTRONIC FLOW COMPUTER

Total Control Systems

The TCS 3000 electronic register is a fully integrated flow computer that controls and measures volume, density, temperature, level, differential pressure, free water and additive injection. Multiple communication options are available to wirelessly transfer delivery information to POS software and/or the TCS HUB online reporting website for trend analysis or record traceability.

www.AviationPros.com/21163452

M4000 NEXT-GEN SELF-SERVE FUELING TERMINAL

QTpod

The M4000 Next-Gen Self-Serve Fueling Terminal offers many new features and enhancements previously not available on any aviation self-serve fueling terminal. Multiple options for payment processing communications, including cellular, Wi-Fi and Ethernet, web-based software management application, a new and substantially improved user interface and the ability to control up to eight pumps are just of few of the new features on the M4000.

www.AviationPros.com/12434602

ZVF 50 OVERWING NOZZLE

ELAFLEX HIBY GmbH & Co. KG

Elaflex's product range includes overwing nozzles for aircraft and helicopter refueling – with Avgas or Jet–A1 spouts and suited accessories. The overwing nozzle ZVF 50 has been received by aircraft refueling operators worldwide. It meets JIG guidelines, is lightweight, has good handling properties and boasts an extremely low hold–open force and sensitive flow control. The ZVF 50 is available with a variety of equipment options.

www.AviationPros.com/12434713

BRAWNY UPGRADE

Coxreels

Coxreels' brawny upgrade is available for any hand crank and motorized 1125 Series hose reel. The Brawny reels are designed with 10–gauge steel plates welded into each disc to keep them from bowing. The center drum is thickened and upgraded from standard 16–gauge to 14–gauge steel to prevent deformation and eventual crushing of the drum that can be caused by hose pressure.

www.AviationPros.com/10779326

ECO START STOP

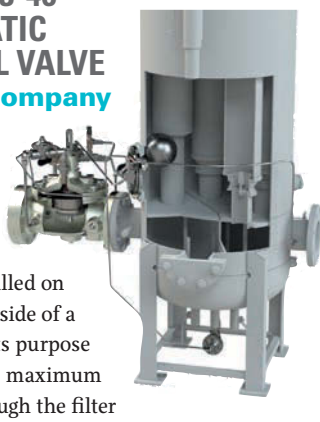
Aerofuel International

ECO Start Stop is a system for saving fuel designed for vehicles equipped with PTO as dispenser and refueling units, taking control over engine start up and shut down. This new version 4.0 is able to connect to a cloud service and send information for analysis, or send an email with the information or errors, whereupon Aerofuel technicians can give users quick online remote assistance.

www.AviationPros.com/21108935

MODEL 43-46 AUTOMATIC CONTROL VALVE

Cla-Val Company



The Cla–Val Model 43–46 is an automatic control valve typically installed on the discharge side of a filter vessel. Its purpose is to limit the maximum flow rate through the filter vessel, preventing the filter vessel from exceeding its maximum flow rate while providing water defense shutdown capabilities. It offers redundant shutdown capability in water defense applications with the ability to shutdown hydraulically by a signal from a Cla–Val Float Control installed in the sump of the filter vessel or electronically when water is detected. This would be via electronic water detection technology offered by others. It also maintains a minimum differential across the valve to ensure positive shutdown if a water slug event takes place.

www.AviationPros.com/21159945

LED DISPLAY

Tekinno Corporation Inc.

The Eagleview large LED display (LLD) is a display built for tankers. The displays help make sure operations away from the tank are safe by showing users the volume or the level of the liquid dispensed into aircraft of other equipment. They can be seen from 100 feet away, night and day, in sunny or rainy conditions and during harsh winter.

www.AviationPros.com/12397689

EMR4

Veeder-Root Commercial-Industrial Products Group

The EMR4 is an electronic meter registration solution. The EMR4 is a globally certified electronic register for any type of custody transfer application.

www.AviationPros.com/12434626

INTELLICHECK 3 DUAL-LEVEL MONITOR SYSTEM

Scully Signal Company

The Scully Intellicheck 3 Dual–Level Monitor System meets the recently revised National Fire Protection Agency (NFPA 407) and Joint Inspection Group (JIG2) standards. It monitors two independent optical overfill sensors, High and High–High Level and features Scully's patented Dynacheck circuitry, providing continuous self–checking fail–safe technology. The original Scully system was designed for the U.S. Air Force in 2003 and has been eliminating overfills for military users for over 15 years.

www.AviationPros.com/12434679

DPGUARD

FAUDI Aviation GmbH

The FAUDI Aviation DPGUARD is a fully automated touchscreen operated calculator to give out the corrected differential pressure across the filter elements, monitor filters or coalescers, in mobile or fixed filter vessels being operated at less than

maximum rated flow. The DPGUARD automatically calculates the condition of the filter elements inside the vessel using the signal inputs of flow rate and differential pressure across the elements. It monitors the changing condition of the elements and provides a history so that element change times can be anticipated and abnormal conditions could be detected. The system is based upon the related joint standards as described in EI 1581, EI 1583, EI 1590 and EI 1596.

www.AviationPros.com/12440622

AVIATION ABOVE GROUND FUELING SYSTEMS

American Environmental Aviation

American Environmental Aviation manufactures tanks and pumping systems for aviation fueling projects as well as complete turnkey construction solutions for aviation fueling and storage projects. The nationwide aviation fueling equipment manufacturer can design, manufacture, complete site work and install aviation fueling systems.

www.AviationPros.com/12377621

HYDRANT CARTS

Westmor Industries

Westmor Industries offers a customizable lines of aviation products, allowing customers to choose options as well as the configuration. The company's Hydrant Carts are towable up to 25 mph and fuel up to 450 gpm. The units utilize a solar-powered electrical system with battery storage and electric registration system.

www.AviationPros.com/12377780

AVIATION FUELING DISPENSERS AND EQUIPMENT

Sparling Corporation

Sparling Corporation provides engineered diagrams and design, product fabrication, onsite installation, system testing and training, complete turnkey systems and more. The company can provide drawings for foundations and electrical service, and SPCC Plans. Its staff of qualified technicians can perform both in-shop and onsite repairs, upgrades and inspections.

www.AviationPros.com/12434590

5K AIRCRAFT REFUELER

BETA Fueling Systems

The 5K Refueler features BETA's engineered frame made with aluminum for lighter weight while tanks come in aluminum, stainless steel or a combination of the two. The side modules are designed to provide maximum protection from impact using a narrower chassis and flexible joints to protect the pipework and valves. Individual control and filter modules mount directly onto the chassis rather than a sub frame. The 5K Refueler comes standard with BETA's all-aluminum filter vessel. It also features an underwing hose reel with electric rewind; a single foot valve for simplicity and ease of maintenance; and more durable stainless steel pipework. Optional features include Aljac and recovery tank for fuel sampling, a stainless steel bolstered tank and upgraded tank suspension for easier access to fuel lines and valves, tank soffit to prevent ice buildup and a second hose reel to allow for metering fuel into each wing.

www.AviationPros.com/12431533

AVIATION PUMP CART
SEI Industries LTD

Designed for mobility around unimproved runways at remote airport locations, the Aviation Pump Cart allows one person to easily move the pump and its hoses over rough terrain to refill an aircraft quickly from a portable fuel tank. Engineered to fit through a narrow aircraft door opening, such as a Twin Otter, the Aviation Pump Cart can be transported by fixed-wing aircraft as well as laid down and secured to the floor of the aircraft, ensuring that the pump engine will not leak fuel, even if full. The cart incorporates a robust hose hanger that can hold 50 feet (15 m) of discharge hose plus a nozzle and 12 feet (3.6 m) of suction hose.

www.AviationPros.com/12426396

MODEL 114-1E REFUELING CONTROL VALVE
OCV Fluid Solutions

The OCV Model 114-1E is specifically designed for aircraft refueling service. Known as either a refueling or a hydrant control valve, it opens and closes electrically via a solenoid pilot. It also modulates to control downstream pressure at a predetermined set point while opening and closing rapidly to prevent undue pressure buildup due to a rapid reduction in demand.

www.AviationPros.com/12377037

REFUELING PUMPS
Gorman-Rupp Company

Gorman-Rupp O Series self-priming centrifugal pumps with hydraulic motors can move the same rates of fuel as the company's power take-off (PTO) models. Model O3H1-HYD provides an alternative to PTO power requirements. Close-coupled to a hydraulic motor, they are an efficient compact solution ideal for handling aircraft fuels.

www.AviationPros.com/21242255

FUEL TRAILERS
Davco Enterprises LLC

The Jet Fleet Management fuel trailers are professional use trailers built for the flight line. Available in NFPA 407 and ATA-103 code built trailers with available DOT MC406 ASME code tanks. Model capacities of 280, 500, 750, 1,000, 1,250, 1,500, 2,000 and 2,500 compatible with fuel types Class 3 combustibles (100LL Avgas – Jet A).Trailers include heavy duty DOT approved trailer chassis with LED lighting and choice of aluminum, stainless steel and carbon steel epoxy tanks. The 12VDC and diesel engine-driven equipment pumps from 25-150 GPM with optional enclosed lockable equipment deck cabinet.

www.AviationPros.com/21112739

LCR.IQ
Liquid Controls LLC

The LCR.iQ is easy to operate, intuitive and fully configurable to automate even the most complex fueling operations. The LCR.iQ was built with the future in mind to accommodate highly sophisticated wireless automation and data transfer systems, and is compatible with critical system sensing devices.

www.AviationPros.com/12434355

V-900 SERIES POWER REWIND REELS
Hannay Reels Inc.

The V-900 Series of spring rewind reels from Hannay Reels are designed for 1-1/4" or 1-1/2" I.D. hose. The reels have a roll-formed channel frame construction, a non-sparking ratchet assembly and a declutching arbor to prevent damage from reverse winding. They are ideal for jet fuel dispensing and can withstand up to 600 psi.

www.AviationPros.com/12420531

▲ Editor - Josh Smith
jsmith@aviationpros.com
920-563-1644

Applying Lessons Learned

We know more about the coronavirus than ever before, and utilizing established solutions will help navigate the challenges posed by the omicron variant.

I would venture to guess a lot of us around the aviation industry have that "here we go again" feeling as the world works quickly to learn more about the omicron variant of the coronavirus.

Passenger traffic continued to recover in October across domestic and international markets. But with news of the latest COVID variant, governments around the globe began re-implementing travel bans in an effort to combat its spread.

Citing advice from the World Health Organization (WHO), the International Air Transport Association (IATA) has warned that the imposition of travel bans by governments are a threat to the sector's recovery.

We're still in the midst of the pandemic, and the risk the virus poses should be taken seriously. But unlike March 2020, there a fewer unknowns presently. With this, IATA has urged governments to focus on simplifying health protocols, utilizing digital solutions to process health credentials and implementing COVID-19 measures proportionate to risk levels while also undergoing continuous review processes – rather than resorting to border closures.

During the IATA Ground Handling Conference (IGHC) in Prague this November, data presented during the event indicated people have a desire to travel again. What's more, a willingness to share individual biometric information is gaining momentum.

The adoption of biometrics could assist with passenger handling for both entry and exit immigration, as well as security. Biometric info can also enable air travel while reducing the potential for person-to-person COVID exposure. Further, integrating biometric data into travel apps can assist airlines and ground handlers in ensuring that government health criteria are satisfied, while simplifying the passenger experience for travelers.

Ideally, governments would all work together to standardize travel requirements. While that's not likely to happen, countries can take a practical approach toward air travel. The aviation industry was quick to adapt to the challenges imposed by a worldwide pandemic and delivered solutions that enable safe travel.

If these approaches continue to be applied to the industry, and innovation keeps advancing, the industry can recover while people remain healthy.

▶ Advertiser's Index

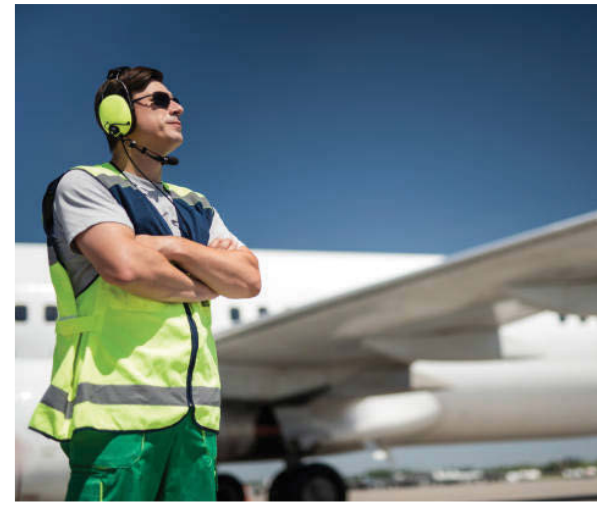
Accepting Nominations!

Recognize the people and the companies that are making a difference in the ground support industry by nominating them for an award.

All winners will be featured in the May issue of the magazine.

LEADERS OF THE YEAR 2022

Ground Support WORLDWIDE

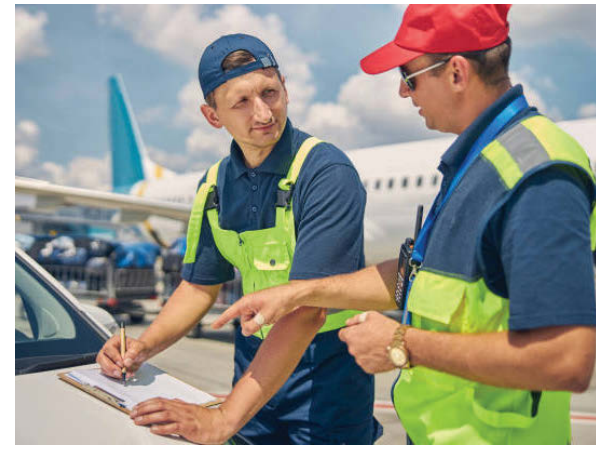


Product / Service Leader Award

This award celebrates the products, services and manufacturers making a difference in the industry.

Nomination Deadline: Friday, February 11, 2022

To nominate visit bit.ly/2022ProductLeader



Team Leader Award

This award will go to an individual who has taken a leadership role with personnel.

Nomination Deadline: Friday, February 18, 2022

To nominate visit bit.ly/2022TeamLeader

Lifetime Achievement Award

This award will go to a person who has demonstrated commitment to the industry through numerous years of dedicated service.

Nomination Deadline: Friday, February 25, 2022

To nominate visit bit.ly/2022Lifetime

Ground Support WORLDWIDE

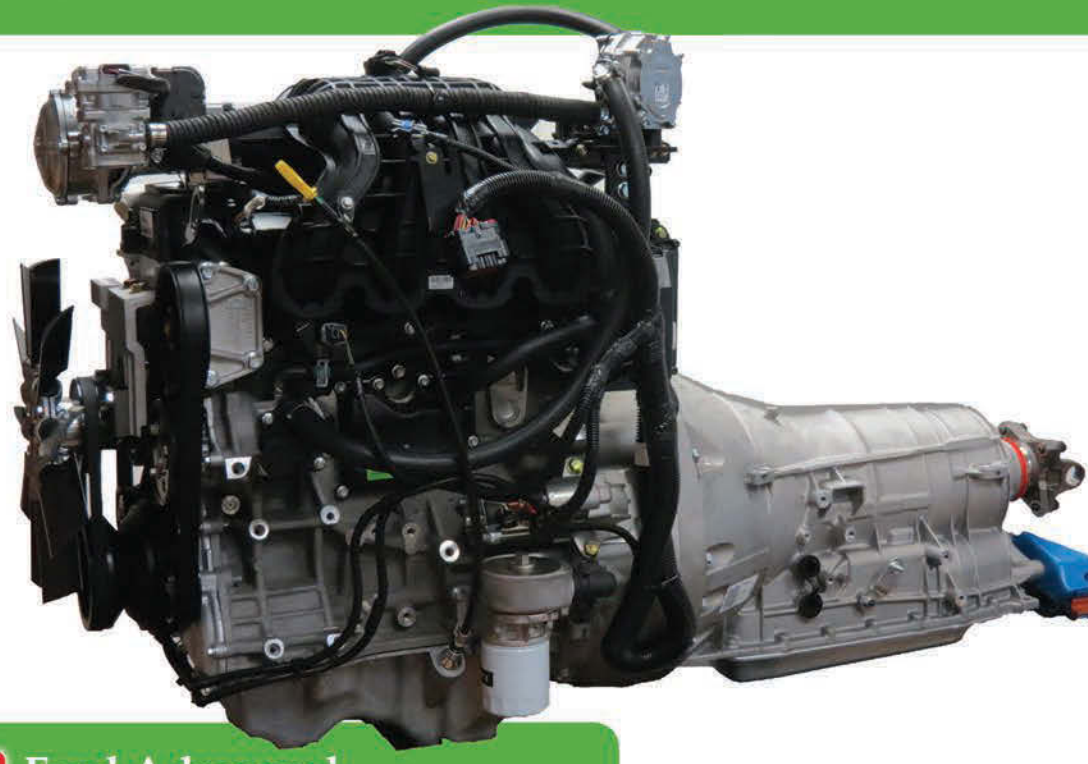
Winners from each category will be contacted by Ground Support Worldwide magazine.

ENGINE DISTRIBUTORS INC.

YOUR *Tier IV Solution*

Reliable • Durable • Clean • Green

Engines That Are The Solution To Your Tier 4 Diesels.



Ford Power Products

Ford Advanced Technology Engines.

Our line of LSI industrialized Ford engines are available and serviced through a Global Dealer Network.

Featuring a complete line of EPA and CARB Certified 2.5, 3.7 and 6.2 L LSI Engines ranging from 20 to 200 hp. Available in Gasoline, LPG, CNG, Natural Gas and Dual Fuel. Secured Volumes, Longer Life Cycles, Dry Fuel and Flex Fuel Valve Trains – You Can Find It At EDI. Performance you can count on!

Engine Distributors Inc. 400 University Court • Blackwood, NJ 08012
Phone: (856) 228-7298 or (800) 220-2700 • www.edi-dist.com