INDUSTRY EXPERT COLUMN Hamburg Airport's Efforts to Improve the Health of Ground Handlers PAGE 10 INTERNATIONAL Africa's Opportunities and Obstacles PAGE 28 GPUs, PCAs and GSE Parts & Components Page 36

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LEADERS OF THE YEAR



ITW GSE

Service Leader Unifi Aviation



Team Leader Ethan Begrowicz

> **Lifetime** Achievement Michalis Panagoulias

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Product Leader ITW GSE



Service Leader Unifi Aviation



Team Leader Ethan Begrowicz



Achievement Michalis Panagoulias





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VIDEOS



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Get the Lead Out – An EAGLE **Initiative Update** By Walker Jaroch Q&A with the senior coordinator for the Eliminate Aviation Gasoline Lead Emissions (EAGLE) initiative.

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Eliminate Foreign Object Debris from Hangar to Ramp By Walker Jaroch

Jason Staver of Elliott Aviation talks about how to create a FOD-mindful work culture.

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Publisher's Note



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Make Plans Now To Be at GSE Expo

The premier event dedicated to the ground support equipment industry returns to Las Vegas this September.

s the calendar flips to May, the average person begins thinking about the end of the school year, vacations and other summer plans. But for those of us in the ground support industry, the summer season means the International GSE Expo is quickly approaching.

It takes a lot of teamwork to put on a world-class event, and so we have been working side-by-side with our partners at IAEMA to continue delivering an expo that meets the needs of GSE manufacturers, ground handlers, airlines, airports, FBOs and other key stakeholders in the industry. In fact, plans for the 2023 International GSE Expo began as soon as the successful 2021 show concluded, and I'm excited to share our progress.

This year's event will be held Sept. 26-28 at the Las Vegas Convention Center, which offers close proximity between the outdoor and indoor exhibits. As of April, more than 80,000 net square feet of occupied space has been sold.

A total of 157 exhibiting companies have already been booked to date. These companies will be showcasing the latest products, services and solutions for our market, including baggage and cargo tractors; deicing equipment; fueling equipment; passenger boarding solutions; pushbacks and utility vehicles; GPUs, PCAs and air starts; lav and potable water units; headsets and communication solutions; and much, much more.

Not only is the International GSE Expo attracting manufacturers, but hundreds of attendees are already making plans to be at the show. We are seeing a steady pace of registration, indicating a strong attendance figure at the 2023 edition of the event.

Of course, a staple of the International GSE Expo is the ability to network with customers and other members of the industry. To further facilitate networking, be sure to sign up for the official golf outing on Monday, Sept. 26. Participants will love the new venue as Bali Hai Golf Club offers a par-71 course with a challenging layout and gorgeous scenery. The golf course is located right on the Las Vegas Strip, adding convenience for golfers coming from the convention center and nearby hotels.

Lunch, an awards reception and prizes are included in the golf outing. But space is limited, so be sure to register for the event as soon as possible.

As the largest show dedicated to the GSE industry in North America, the International GSE Expo is a must-attend event for learning what's new and what's next for the future.

In addition to booth space, be sure to inquire about sponsorship openings and other opportunities to make sure your



Sept. 26-28 Las Vegas Convention Center

...more than **80,000 net** square feet of occupied space has been sold to date

...A total of **157 exhibiting companies** have already been booked to date

company is prominently seen throughout the show.

Visit GSEexpo.com to register for the event, book hotel accommodations and find other useful information. And please keep an eye on the *Ground Support Worldwide* daily newsletter for more updates regarding the show as preparations continue.

I can't wait to see you all in Las Vegas!

Business Buzz

TOP NEWS



Menzies To Acquire Controlling Stake in Groundforce

Menzies Aviation has signed a subscription agreement with TAP Air Portugal and Groundforce to acquire a controlling stake of 50.1 percent in Groundforce, the airline's aviation services arm.

Groundforce handles more than 100,000 aircraft turns each year, across its operations at five of the busiest airports in Portugal. The aviation services company provides ground and air cargo services to several global airlines including TAP, its main customer. "This transaction is further evidence of our scale and ability to enter a market in a meaningful way, as a long-term investor with a strong commitment to deliver industry leading services to airline and airport customers," said Hassan El-Houry, Menzies Aviation chairman.

Upon the completion of the agreement, Menzies Aviation will have a 65 percent market share in Portugal, with operations at five airports and more than 3,000 employees.

UK Completes Review of Ground Operations To Increase Sector's Resilience

The UK Department for Transport has set out 10 areas for the aviation industry to focus on to ensure airport ground operations get back to full capacity and avoid a repeat of the travel disruption seen last summer.

"We've made it clear that improvements can and must be made, so the UK Civil Aviation Authority are working closely with the industry to build a resilient ground handler market for years to come," said Aviation Minister Baroness Vere of Norbiton.

Areas of focus include measuring ground handler performance, engaging ground handlers and the government, supporting the government and the industry's general aviation program for recruitment, retention, upskilling and outreach; and establishing a series of working groups to address airport ID processes and performance standards.

SATS Completes Acquisition of Worldwide Flight Services

SATS Ltd. has acquired Worldwide Flight Services (WFS) for €1.3 billion (equivalent to approximately \$1.8 billion USD) from an affiliate of Cerberus Capital Management, representing an enterprise value of €2,250 million.

WFS becomes a fully owned subsidiary of SATS, headquartered in Singapore. WFS will continue to be headquartered

Upcoming Events

May 16-18

IATA Ground Handling Conference Abu Dhabi, United Arab Emirates

June 19-21

GSE&RAMP-OPS Global Seville, Spain

July 24-30

EAA AirVenture Oshkosh, WI



in Paris and operate as Worldwide Flight Services.

Craig Smyth, CEO of WFS, will continue to run the company and report to Kerry Mok, president and chief executive officer of SATS, and an advisory board.

"SATS and WFS will provide our customers with the critical global cargo handling capability, and the scale advantage for us to develop and pioneer new solutions that will enhance our customers' competitiveness. We welcome the management team and employees of WFS into the SATS family. Our focus is now on accelerating value creation for our customers over the medium term," said Mok.

"Our combination with SATS enhances our ability to provide end-to-end trade solutions, which is increasingly critical to our global customers. Together, we will drive technology and service innovations while maintaining our industry-leading standards of safety and security," said Smyth.

SAE AGE-3 Committee Holds Spring Meeting

The SAE Aircraft Ground Support Equipment Committee (SAE AGE-3) held its annual in-person meeting in Orlando, Florida during the week of March 27. The event, hosted by JBT, was held in conjunction with the IATA Ground Operation Automation and Digitalization (GAD) Committee gathering.

The SAE AGE-3 committee provides standardization and recommended practices within the GSE industry. Committee members include airlines, aircraft manufacturers, ground handlers, airports, equipment manufacturers and suppliers.

Technical presentations were made covering topics such as autonomous vehicles.

Several working groups provided updates on topics including aircraft recovery equipment, 400 VDC electric propulsion systems in ground support equipment, and PCA enhancements. The committee initiated a revision to a recommended practice to standardize GSE chargers at the airport for common charging infrastructure throughout the industry.

Elections were held and Kevin Cecil was elected chairman and Dan Boucher was elected vice chairman.

The fall 2023 meeting will be virtual on Oct. 5.



dnata's Air Dispatch Celebrates 7 Millionth Loadsheet

Air Dispatch, part of dnata and a leading supplier of centralized load control (CLC) services, recently celebrated the production of its 7 millionth loadsheet. The milestone document was issued from the Prague facility, ensuring safe and efficient operations of a Titan Airways' Airbus A330-300 P2F cargo flight, which the airline operates on behalf of global forwarder GEODIS.

Air Dispatch has been offering CLC services to legacy and new generation carriers since 2007, calculating the weight and balance conditions for aircraft prior to flight, securing greater productivity and profitability for its airline customers.

"With the increased adoption of the IATA Ground Operations Manual (IGOM), more and more cargo airlines are looking to CLC services as a way of complying with the newly required 'four-eyes' principle for the production of weight and balance documentation. Using a CLC for the production of the loadsheet allows for early communications with the cargo warehouse, thus maximizing the payload and freeing up the loadmasters' time during the turnaround," says Nick Yeadon, CEO of Air Dispatch.

PEOPLE

Swissport Announces Changes to Executive Team

Swissport made two key changes to its executive team. Karen Cox, formerly global director of operations and safety and co-head of UK and Ireland, has assumed the role of CEO for the group's UK and Ireland region. Andres Diez, director of global commercial, becomes new chief commercial officer for the Americas, taking on the task of driving topline business growth and improving profitability across the United States, Canada, Latin America and the Caribbean.

"Karen and Andres have both made significant contributions to Swissport since joining the company in 2021. As we put all our energy into taking the company to the next level of global service excellence, we also want to further commercialize our offering across countries and regions, especially for airlines operating worldwide," said Warwick Brady, president and CEO of Swissport International AG.

Cox reports to Brady. She is stepping down as director of global operations and safety. This post will be taken over ad interim by Richard Male, global VP for ground handling.

Diez reports to Frank Mena, CEO of Swissport's U.S. and Canada region, and to Rene Pascua, CEO of Latin America and the Caribbean. Until a successor has been appointed, he will also continue to serve Swissport as director of global commercial.





Co

Vanderlande **Appoints Next CEO**

Andrew Manship will become Vanderlande's next chief executive officer

(CEO). Manship will succeed current CEO, Remo Brunschwiler, who intends to transition to nonexecutive management positions.



Manship is currently

the company's executive VP BU airport and parcel solutions. He has been with the company since 2016 and merged Vanderlande's airport and parcel businesses.

Chairman of Vanderlande's supervisory board, Norio Wakabayashi, sees the benefit of appointing an outstanding internal candidate as the new CEO.

"We are convinced that Andrew is the best candidate to lead Vanderlande

through its next phase of growth. He has successfully expanded the global airport business for the company and realized valuable portfolio synergies with the parcel business. Vanderlande will continue to benefit from his visionary industry expertise and unwavering customer focus, reinforced by his value-driven ethos," Wakabayashi said.

Jettainer Strengthens Branch Office and Temperature **Control Competence** Center in Abu Dhabi

Jettainer has strengthened its foothold in the Middle East, Africa and the Indian subcontinent by adding Rammohan "Ram" Krishnaswamy to its branch office in Abu Dhabi.

Krishnaswamy joins Jettainer to serve regional customers, like Etihad and Oman Air, and to further develop Jettainer's business in the Middle East, Africa, and the Indian subcontinent. Globally, he assumes ownership for Jettainer's cool&fly service.

"We are delighted to have Ram, a highly experienced aviation specialist,

on board at Jettainer. He has both outstanding business insights and excellent contacts in the region as well as global experience. Therefore, he understands the market dynamics very well. We



Krishnaswamy

also believe that the region and the cool business have great potential as the pharmaceutical sector is one of the fastest growing industries. We are looking forward to grow our business with new and existing customers," said Thomas Sonntag, CEO of Jettainer GmbH.

NEW DEALS

Aviator Extends Turkish Airlines Contract

Aviator Airport Alliance continues to strengthen its partnership with Turkish Airlines by signing a new contract. Under the agreement, Aviator will provide ground handling, including passenger and ramp handling, and deicing and anti-icing services to Turkish Airlines at Helsinki Airport.

"Our continued collaboration with the airline over the years has allowed us to establish ourselves as dependable and professional partners, and this expansion of our partnership is a testament to our successful track record. Going forward, we will continue putting in our best efforts to support the airline and its operations," said Casper Dons, chief commercial officer at Aviator Airport Alliance.

Turkish Airlines is one of the oldest Aviator clients at Copenhagen Airport, with the companies starting their cooperation in 2012.



BGS Strengthens Partnership with Smartwings

BGS has strengthened its partnership with Czech air carrier Smartwings. The companies renewed contracts for into-plane fueling at Vilnius and Riga airports and signed a new agreement for into-plane fueling at Tallinn Airport for one year.



"BGS's commitment to service safety and quality results has proven them to be a trustworthy partner. We are

delighted to further extend our partnership scope and trust BGS will continue providing us with professional services," says Petr Čeněk, Smartwings ground operations director.

Recently, BGS has also renewed contracts with the low-cost airline Ryanair for into-plane fueling at Vilnius, Palanga, Leoš Janáček and Riga Airports.

Industry Expert Column

Hamburg Airport's Efforts to Improve the Health of Ground Handlers

In 2016, HAM and other agencies launched a project aimed at significantly improving the well-being of airport ramp personnel.

hile safety is crucial across the aviation industry, some inherent risk remains. For example, ground handling agents like baggage handlers can suffer from musculoskeletal disorders (MSDs) from repetitive tasks like working in cramped locations and lifting heavy items.

Data from the European Agency for Safety and Heath at Work (EU-OSHA) indicates MSDs become more common as workers age. What's more, current social trends indicate that the average age of workers at German airports is increasing. In fact, it is predicted that the average

BY HELGE HOMANN

age of employees across German airports in 2024 will be 54 years old.

To address MSDs and the issues they create for ground handling personnel, Hamburg Airport (HAM) worked with social security agents in Germany, including BG Verkehr, to develop a program intended to prevent and rehabilitate work-related injuries through personalized instruction as well as occupational training and exercise.

The Project

The goal of this project was primarily designed to prevent accidents and injuries. According to data collected,



back problems accounted for more than 20 percent of time off requests from ground handlers.

Leadership at HAM had attempted to avoid employee injuries by finding solutions such has providing gym memberships and offering training and fitness advice. But despite these incentives, airport officials didn't achieve the desired results. Ultimately, it was determined that people were more likely to adopt better fitness goals if it was part of their daily work activities.

The project's leaders worked with approximately 850 airport employees made up of two groups – those most at risk of developing MSDs and a second group who were not faced with enough challenges for their musculoskeletal systems. The first group was comprised primarily of baggage handlers, who regularly lifted heavy items, and aircraft cleaners, who often find themselves working in difficult ergonomic positions. The second group included HAM's bus and truck driving staff, who face longer stretches of inactivity.

The goal was to reduce requested time off by ground service personnel caused by musculoskeletal disorders. To accomplish this, project leaders worked to optimize the way ground handlers performed tasks in the short term and then make those changes to work habits sustainable for the long term. To aid this effort, a training center was created to improve endurance and force training and to provide a job simulation environment to enhance work training. Among the initiatives of this project was an 18-month program called "Remember Me, Your Back." Designed to promote improved back health, the program yielded successful results, so organizers extended and expanded the project to include additional airport employees.

To track results, the new project required all staff to undergo a physical prior to beginning.

Ground handling agents were also given individual instruction to help them address their own unique objectives and were given advice for approaching their training.

The training package included cardiovascular and strength exercises as well as work simulation duties to improve practical techniques for daily tasks such as lifting and transferring baggage unto a belt loader.

The job simulator replicated the daily challenges ramp workers face, including working positions, lifting requirements and more. As employees used the simulator, they received feedback and other advice on how to perform their duties safely.

What set this project apart from other fitness initiatives was the fact that training and gym time occurred during normal work hours. Training was built into the daily schedule, taking into account peaks and valleys in HAM's flight traffic.

Additionally, the program allowed employees to learn from health experts and get feedback while working on the job.



Results

The University of Applied Sciences, located in Hamburg, was tasked with evaluating the program's effectiveness. Ultimately, the report found that improvements in work behavior and movements had been sustainable months after the project began.

Ground personnel were still attending fitness and strength training sessions and improved techniques were still being utilized.

Businesses were seeing the desired effects as well, as costs sustained by time-off requests dropped significantly and provided a robust return on investment.

After BG Verkehr ended is direct involvement with the project in 2020, the airport continued with it. And since the initial pilot, the program has expanded to other industries such as nurses and caregivers.

One group of

employees in

comprised of

handlers, who

this project was

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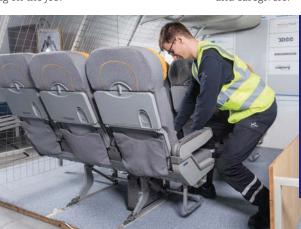
ergonomic

positions.

cleaners, who often

working in difficult





daily challenges ramp workers face, including working positions, lifting requirements and more. As employees used the simulator, they received feedback and other advice on how to perform their duties safely.

Summary

In addition to the positive results mentioned previously, the program also highlighted the mutual benefits of improved health for both individual employees and businesses.

For example, one employee shared his experience with the program and noted improvements in his diet, weight and personality. He also pointed out an improved relationship with his employer, which has led to increased motivation at work.

In an industry where employee retention is becoming increasingly important, developing a positive employee-employer relationship is crucial. **GSW**

ABOUT THE AUTHOR

HELGE HOMANN Helge Homman is head of the aviation section within the department of prevention at BG Verkehr. Located in Hamburg, Germany, BG Verkehr provides statutory accident insurance for the transport,



postal logistics and telecommunications industries in Germany. The company advises more than 210,000 member companies on prevention and provides treatment, rehabilitation and compensation for its insured after work accidents and occupational diseases.



With features including automatic airflow detection and options like Intelligent Power Management, the company's 3500 PCA offers users many benefits.

BY JOSH SMITH

he commercial aviation industry is pushing for greener, more environmentally friendly operations. These initiatives are impacting the way ground support equipment (GSE) is being designed as well as how it is being utilized on the ramp.

This push for greener GSE includes pre-conditioned air (PCA) units and ground power units (GPUs), which eliminate the need for using auxiliary power units (APUs) on aircraft.

"With the industry moving towards sustainable GSE solutions imposed by governments and local authorities, there is a need for equipment with lower energy consumption to support this," says Alberto Rocha, sales director for the Americas at ITW GSE. "The increasing focus on environmental issues is a great incentive to switch to external PCA and 400 Hz solid-state units while the aircraft is parked at the gate, instead of running the aircraft APU." To assist the industry in meeting environmental goals, ITW GSE launched its 3500 PCA in November 2022. Improving upon its 3400 model, the new unit offers automated aircraft detection to improve airflow utilization, a modular design to enhance ease of use and optional Intelligent Power Management to further increase power consumption efficiencies.

With features designed to reduce infrastructure costs and lower energy consumption, ITW GSE has been named the 2023 Ground Support Worldwide Product Leader of the Year.

Automatic Airflow Detection

A key feature of ITW GSE's 3500 PCA is its patented Variable Frequency Drive (VFD) technology, which enables stepless regulation of discharge temperatures.

With this technology, the PCA unit delivers the exact amount of cooled air required.



"VFD also means energy savings because the VFD controls all main components, including compressors, fans and blowers," Rocha explains, adding this ensures a minimum total lifetime cost. "In addition to energy savings, state-of-the-art components ensure high performance at the output."

The 3500 PCA includes an integration to Visual Docking and Guiding Systems (VDGS), an airport's Building Management System (BMS) and other data collecting systems. ITW created an algorithm that factors in different aircraft types and their needs for air, including airflow, pressure and temperature.

"This automated aircraft type detection feature means that the PCA receives information on the arriving aircraft type as soon as the aircraft approaches the gate. From its aircraft database, the PCA already knows the exact aircraft settings," Rocha says. "Automated aircraft type detection makes the 3500 the only PCA on the market to automatically adapt its airflow to the specific aircraft type – and not just to an aircraft category. This not only helps to avoid operator errors – it also increases the PCA cooling performance by more than 50 percent and improves the passenger comfort."

Rocha notes the system offers simplified operation, adding the PCA's operator only needs to use the on and off function. More



importantly, Rocha notes the equipment automatically calibrates itself to deliver the exact airflow and temperature required to maintain a comfortable aircraft temperature for passengers.

Modular Design

ITW GSE's 3500 PCA has improved on the modular design of its 3400 PCA model.

By utilizing this design, cooling and optional heater modules can be quickly swapped out, which helps keep aircraft turnarounds on schedule.

Cover Story

According to Rocha, the modular design also assists with spare part inventories.

When components need to be replaced, all parts, such as the self-containing cooling modules, condenser fans and main blower, can be replaced without removing the PCA unit from the passenger boarding bridge, he says. The modular design also enables quick cleaning. Once the cooling modules have been pulled out, the internal plenum and stainless steel drain pan are accessible.

In the event a module is not working, the PCA does not shut down entirely. Rather, explains Rocha, the unit's software will identify the non-operating module and spread the cooling demand to the other modules.

"When you have a system that has multiple modules, you can actually take one out and continue to operate with what's remaining in the system while you repair the other one," Rocha says, adding customer feedback on this feature has been very positive.

As an option, the 3500 can also utilize a built-in 400 Hz GPU. Integrating the GPU with the PCA means saving space and reducing the weight under the passenger boarding bridge, Rocha explains.

"Consequently, instead of having two boxes that communicate and share power, the ITW GSE 3500 is a single enclosure that controls the complete system, which makes it easier to install and consequently lowers infrastructure costs," he says. "This makes it the ideal solution for narrow-body contact gates and refurbished gates."

IPM and EcoGate

The company's Intelligent Power Management (IPM) solution is available as an option for the 3500 PCA.

"The 3500 works perfectly well as a PCA without IPM. But in order to exploit the full, intelligent potential of the 3500, you need IPM," Rocha says. "IPM is the brains behind the EcoGate system and it's hosted in the ITW GSE 3500 PCA. With IPM, all ITW GSE equipment can be powered from a single power line running from the gate's power supply to the 3500 PCA.

"From there, IPM allocates power dynamically to the different units – always prioritizing the needs of GPUs, while ensuring that total power capacity is not exceeded."

With IPM capabilities, the PCA is able to monitor all connected equipment. It adjusts the PCA's power consumption



A key feature of ITW GSE's 3500 PCA is its patented Variable Frequency Drive (VFD) technology, which enables stepless regulation of discharge temperatures.



to stay below the preset current limit of the complete gate system, which ensures that all on-ground electrical needs can be supplied by the connected GPU.

"This means that the aircraft is serviced, and the combined power consumption of the PCA and GPU never exceeds the installed power capacity at the gate," Rocha says.

Additional EcoGate-compatible equipment, such as a PCA hose retriever or eGSE charger, can also utilize the IPM.

"It is a whole new environment with this technology, where before they had to run individual feeds for each product, now it's just feed one and then that one controls the whole power consumption for the other accessories," Rocha says.

Units in Demand

According to ITW GSE, the 3500 PCA is already in great demand globally from airlines, airports and passenger boarding bridge manufacturers. Rocha credits this demand to the unit's modular design, which allows ITW to scale PCAs to accommodate any climate and any commercial aircraft.

The 3500 is produced at ITW GSE facilities in Palmetto, Florida, in the United States and Odense, Denmark.

"The demand for PCAs is really taking off especially in the Americas, and the first PCA 3500s will be supplied as of summer 2023," Rocha says, noting units will be delivered to Harry Reid International Airport (LAS) in Las Vegas, Detroit Metropolitan Wayne County Airport (DTW) and San Diego International Airport (SAN).

"The 3500 is a demonstration of our commitment to supplying the aviation industry with the cleanest, most reliable and cost-effective GSE systems available," Rocha concludes. **GSW**

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Leveraging technology, the ground handling firm has transformed from a wholly owned subsidiary to the largest independent provider of aviation services in the United States.

BY JOSH SMITH

Turnifi Aviation's path to becoming an independent ground handler began in 2019. And in a short time, leadership at Unifi has been able to establish a new company culture and build on its foundation.

By implementing new technologies, Unifi is enabling its frontline employees to provide a full suite of ground services across the United States, including ramp services, passenger handling, maintenance services, ticketing and more.

In recognition of these achievements, Unifi Aviation has been named the 2023 *Ground Support Worldwide* Service Leader of the Year.

"Unifi was created largely because of the divestiture of Delta Global Services (DGS) in 2019," explains Unifi CEO Gautam Thakkar, who joined the company in 2021. "They had a deal with a company called Argenbright Capital, where they sold 51 percent of their stake to Argenbright."

Argenbright shepherded the company's transition from subsidiary to independent handler and began rebranding in 2020. Following the transition, Unifi began building its current business on top of the foundation established by DGS. "We've pretty much doubled our growth. We are close to about \$1 billion in revenue. We've got almost 210 stations that we operate in and 23,000 employees across the country, so it's a good footprint across all the possible service lines," Thakkar says.

Having an existing presence in key locations, including New York's John F. Kennedy International Airport (JFK) and Hartsfield-Jackson Atlanta International Airport (ATL), has allowed Unifi to offer full ground handling services – both above and below the wing.

"Just because of the scale that we had – and the presence and the footprint that we had – our ability to provide adjacent services in airports that we were already present went up dramatically," he adds. "Our presence in those locations gives us the ability to expand our services and expand our footprint."

While exponential growth has been a goal for Unifi, company officials note the appropriate infrastructure needs to be in place to facilitate that growth.

"We didn't want to build an architecture or infrastructure, where I need to build huge data centers and employ more



resources to manage that," says Sandeep Angra, chief information officer and chief technology officer at Unifi.

"We had to build our systems and IT infrastructure in such a way that it's scalable because we continue to grow the business every day," Angra says. "So how do you integrate all of that quicker, faster and smarter? We had to think through all that."

To that end, Unifi has focused on cloud-based and softwareas-a-service (Saas) solutions while implementing new technology aimed at improving human resources processes, employee engagement and frontline operations and training.

Avature

With more than 200 stations across the U.S., individual locations previously used an array of hiring processes to onboard new employees. To combat challenges and to improve visibility at the corporate level, last year Unifi launched a fully automated application tracking system called Avature.

"Now across the network, at any given point in time, we want 100 percent of our stations on Avature, which gives us complete line of sight in terms of the hiring pipeline," Thakkar says.

By automating the hiring process, Avature offers several advantages to Unifi. Job boards can be digitized, prospective employees can self-schedule badging times with the airport, offer letters can be issued quickly and background/drug screenings can begin immediately after job offers are extended.

"The entire process is so seamless. There are very little touchpoints, other than interviewing the person as we need to," Thakkar says. "There are so many aspects of moving from a manual, disaggregated environment to a complete automated, aggregated environment that the benefit is, in my opinion, a lot."

The ability to scale this technology is important. Thakkar notes having the right people in place and utilizing the appropriate technology will allow the business to grow.

"For example, if you have a new location coming up, typically you would need to put the job on the job board and start processing the applications. Now it's all on Avature. We just need to post the ad in that particular location or city, and it now automatically gets routed in," Thakkar says, noting nearly 20 start-ups have taken place in recent months and all have gone smoothly thanks to Unifi's start-up team and the support provided by technology.

"It simplifies the whole process, and it allows us to scale the business."

WorkJam

Recruiting and onboarding employees is key to supporting growing operations. But once employees have joined the team, connecting with frontline employees is key for corporate management, Thakkar explains.

Using a mobile app called WorkJam, Unifi is able to foster the employee engagement required to improve morale and reduce attrition.

"The initial thought process was communication," Thakkar says. "If somebody from the frontline wants to reach out to me, what is their mechanism for reaching out to me?

Cover Story

"I think that was the genesis of the idea."

When he first joined Unifi, Thakkar would ask frontline employees what information they wanted at their fingertips. The common responses included access to pay and related salary information as well as using paid time off and managing shifts.



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Through WorkJam, Unifi is able to use the mobile app to foster employee engagement, improve morale and reduce attrition.

"All of that, we essentially automated," Thakkar says.

"We have almost a 60 percent adoption rate for WorkJam," he continues. "The ease with which they can access information is important. That improves their experience of working with us, and we believe that if we can take that experience out of the hands of the managers and supervisors – basic information – and pass it to the frontline employees, themselves, it just gives them a better way of actually managing their time."

Because each of Unifi's markets have different hourly contracts, WorkJam allows corporate management to centralize this information and ensure accuracy when issuing paychecks.

"Frontline employees depend a lot on their weekly or biweekly paychecks. We wanted to rein all that in so that we had control, and we wanted to make sure there were zero errors," Thakkar says.

Migrating from manual processes to WorkJam has been a huge transformation for an organization the size of Unifi.

"I commend the HR and the technology teams and the operators for adopting it because it was something that was very much needed in the field," Thakkar says. "Their ability to take that and put it to use so that it creates a very streamlined process, I think, is wonderful to see."

WorkJam officials have continued to work with Unifi to add additional functionalities and ensure new features fit the company's needs. For example, WorkJam implemented a feature that allows employees to receive fractional pay prior to established pay days. Unifi has also worked with WorkJam to pilot a function that allows employees to swap shifts with one another.

"There are different things that we're trying," Thakkar says. "The idea and the sole purpose is to have easy access to information so you can do your job better and improve your employee experience for the time you're spending with us."

Data Modeling

Unifi has also enhanced safety by implementing a predictive data modeling program in collaboration with Microsoft and Artis Consulting.

The system offers two phases which allows operation managers to predict what might happen and offer solutions to avoid problems. The predictive component of the data model analyzes risks associated with organization safety, aircraft ground damage and employee injuries. The prescriptive component provides solutions to prevent risk. "We've started as prescriptive and now it's become predictive. Our model seems to be improving over a period of time," Thakkar says. "It keeps rewriting itself twice a week, so the model is improved.

"Moving from a prescriptive to a predictive model, from trying to figure out what happened last week to actually doing the root cause that's telling you this might happen this week – I think it's a huge shift from our perspective," he adds.

After piloting the artificial intelligence solution, Unifi is now rolling it out to other stations across the country.

"The reception and the people who have started using it, it's been great feedback for us," Thakkar says. "Now it's about increasing adoption and making sure people are actually using it, so that our customers can see the value in it as well."

The data modeling system is able to identify patterns and learn from them. The system has access to 30 data points and 500 individual variables, which allows it to recognize potential risk and other issues more effectively than humans.

Capturing that information gives Unifi tremendous insight into what might happen, Thakkar explains.

"The model from the base case has improved dramatically and it keeps improving to the point where, if there is an incident of a worker injury or aircraft damage that has happened, there's a 99 percent chance that if we had the tool in place, we would have caught it," he says.

Leadership

While technology has enabled Unifi to achieve several recent successes, Thakkar also credits the people who have been tasked with leading the company's transformation.

"If you take a look at the leadership team that we have, I think that's a very important reason that we've been able to grow the business, scale the business," Thakkar says. "It's a very diverse group of individuals with very diverse backgrounds.

"If you look at the people who are in the respective roles, I think they are probably the best in the industry in terms of what they do, which helps provide the kind of guidance that we need."

According to Thakkar, culture has been an important element of Unifi's journey. He says company leaders wanted to establish a culture that was more service-oriented. That culture is established at the top.

"We may be corporate, but we are essentially working for the frontline employees – not the other way around," Thakkar says, adding Unifi's goal is to improve the experience of its employees. "We are trying to do whatever we can to make sure that they are having a great experience working with us." **GSW**

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Begrowicz credits a 12-week Dale Carnegie course for honing his leadership skills.

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Eager to learn, the operations manager at Avflight Lansing leads while working side-by-side with his colleagues.

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BY JOSH SMITH

Cover Story

than Begrowicz may be relatively new to the ground handling industry. But his appetite for knowledge has allowed him to gain practical experience and gather an important perspective in a short period of time.

After learning on the job for four years and enrolling in a Dale Carnegie course to hone his leadership ability, he has risen quickly through the ranks at Avflight Lansing. He was promoted to operations manager last summer and now leads a team of 14 people while overseeing compliance and training and ensuring top-notch line staff performance.

For his dedication to personal growth and his impressive professional achievements, he has been named the 2023 *Ground Support Worldwide* Team Leader of the Year.

As operations manager, Begrowicz oversees quality assurance and line services. He is tasked with keeping his operation in compliance with FARs and



ATA 103 requirements. What's more, he is in charge of training line techs and ensuring his team is providing excellent customer service.

After earning a degree in aviation management technology, Begrowicz hit the ground running at Avflight Lansing. He began as line tech in 2018 and was promoted to the second shift line technician supervisor in December of 2021.

With a strong work ethic, he gained experience quickly thanks to a busy flight schedule at the FBO due in part to sports team charter flights.

"Since we have Michigan State here, we are busy from August to March doing sports charters," Begrowicz says. "A lot of that responsibility falls on the afternoon shift.

"Working as a line supervisor in the afternoons has helped propel me quickly into an operations manager position," he adds, noting that working with charter flights has helped him build business relationships as well.

Learning to Lead by Example

Early on, Begrowicz was mentored by Les Jones, his supervisor at the time. Jones emphasized the importance of a strong work ethic and ensuring excellent customer service.

A big lesson that stuck with Begrowicz was doing whatever it takes to get the job done.

"Whether we take 5 minutes out of our day to do a small, menial task, it doesn't matter. We've got to get it done," Begrowicz says. "For some of our hourly guys, for these sports charters, it's a lot of overtime. He instilled that we need to either stay late or come in early to help other teams – doing what it takes to get the job done.

"Teamwork and communication are critical," he emphasizes.

Begrowicz put those lessons into action when he became a second shift leader and oversaw four line technicians.

"That helped grow my leadership skills a little bit more," he says.

Begrowicz's professional growth continued as he prepared to become operations manager. Prior to taking on his current role, he enrolled in a Dale Carnegie course to focus on leadership training.

"The message that stuck with me the most is that in order to be an effective leader, you need to believe in yourself, and you need to believe in your team and you need to show your confidence," he says.

The 12-week program took Begrowicz out of his comfort zone.

"It gave me important skills to lead my team to success," he recalls. "Probably my biggest fear coming into that course was public speaking. I just did not like getting up in front of groups and talking."

The course required frequent presentations in front of the class, which included about 30 people.

"By the end of the course, I was entirely comfortable talking in front of a big group of people and giving a presentation," Begrowicz says. "That's really important for my role because I do lead safety meetings. I lead team meetings. Being able to speak publicly helps my communication skills with my team."

Begrowicz has paired his leadership training with other lessons learned on the job and has transitioned smoothly into his position as operations manager.

According to Lynn Markowski, general manager at Avflight Lansing, Begrowicz's experience as a line tech and thorough knowledge of the business has helped him succeed.

"I think the biggest thing that impresses me is he's right there with his team. He doesn't ask them to do anything that he wouldn't do. So, he's not only juggling the operations stuff I give him – and there's reports, and things he's got to do as a leader – but he's also supporting his team on the ramp," she says.

"He really does go above and beyond." Although it is necessary some days, Begrowicz says he prefers not to be stuck at his desk behind the computer.

"I love being out on the ramp – interacting with customers and working with my team," he says. "I've noticed, as a leader, if you're out there doing the work, your team tends to respect you a little more."

Markowski applauds his hands-on training approach.

"We've got some very new, young people who are on the line," she says. "I like how he takes them out there, shows them, lets them do it and then watches and critiques them."

To help his team grow, Begrowicz focuses on three key things – talking about his own mistakes, asking his teammates for their opinions and encouraging others rather than criticizing.

When it comes to talking about his own mistakes, Begrowicz says it reminds his team that everyone is human. And if a lesson can be taught from a previous error, others can benefit.

"You learn from it, you grow and you become better because of it," Begrowicz says.

Asking others for their opinion is an everyday occurrence for Begrowicz, too. Whether they are stacking a hangar, performing maintenance or towing an aircraft, he likes to keep everyone involved.

"It makes my team feel included and it makes them feel like they're making decisions for themselves, instead of relying on me to make decisions for them," he says.

Perhaps the most important element of his leadership style is encouragement. He believes positive reinforcement is key to getting the best out of his co-workers.

"We call it the three Cs. Don't criticize, condemn or complain," Begrowicz says. "I always like to use encouragement. I think praise and encouragement is the best way to help an employee grow. You don't want to make them feel like they can't do something," Begrowicz says.

When mistakes do happen, Begrowicz will sit down and talk to the employee to understand what happened and why it happened, and then he will make sure that employee understands why it is a problem and must be avoided.

This attitude fits with a teaching-focused philosophy.

"My opinion is if I'm going to do something that's a complicated task, I might as well take a new person down with me and show them how to do it. They don't have to learn all of it right away, but they can see this is the process," Begrowicz says.

Responsibilities on the Ramp

On a routine day, Begrowicz will start by checking in with everyone from the customer service representatives at the front desk to the line technicians on his team. After that, he will check inventory and jet fuel supply and ensure customers' needs are being met.

"In aviation, I have learned that there is never a dull day," Begrowicz says. "I enjoy walking into work every morning with the opportunity to see something new."

In addition to sports team charters, the FBO regularly handles military charters and provides fueling for UPS on the airport, which adds variety to the ground handling tasks required of Begrowicz and his team. During the school year, sports team charters increase and in November and December UPS flights peak as holiday shipping needs surge.

"You have to be prepared for anything. Aircraft could break down. Flights could get delayed, weather, all that stuff," Begrowicz says. "Any sort of operation like that requires flexibility and great communication."

In between flights, Begrowicz ensures the FBO is in compliance with all FARs and ATA 103 requirements.

"If I notice that it's going to be a particularly slow day, then it's a good day to catch up on some of this computer stuff I've got to do," he says. "I'm in charge of checking our inventory, so jet fuel, deicing inventory.



Avflight general manager Lynn Markowski appreciates Begrowicz's hands-on leadership style with line techs.

"So, making sure that's all good. Working with our accounting department to make sure we're within appropriate gains/losses. Then I typically go over training documents and see if there's anything I need to do on the docket."

Avflight Lansing currently has one line supervisor who helps train line technicians and assists with quality assurance tasks. There are also 11 line techs, whose primary role is to fuel aircraft, assist customers, tow aircraft and perform other ground handling tasks.

Begrowicz speaks highly of his team and credits their contributions to a successful operation.

"I have experienced line techs here, who help make my job easy. A lot of things I do are behind the scenes on the computer – compliance, training, all that other stuff," Begrowicz says.

"I'm nothing without my team," he says. "They're really the backbone of this place. They're here when I'm not here, getting the job done."

Markowski notes that Begrowicz has had a can-do attitude from his first day on the job.

"He's just so eager. He loves his job, and it shows," she says, noting Begrowicz has faced many challenges along the way, but finds a way to succeed.

"He's just so valuable to the operation. I couldn't do it without him." **GSW**

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Working his way up from the ramp with an eye on procedure, the corporate health and safety manager at Goldair Handling has become a ground handling guru.

BY JOSH SMITH

s it does with other aviation enthusiasts, the "smell of kerosene" piqued Michalis Panagoulias' fascination with aircraft. Also curious about how planes fly, he recalls being interested in working in aviation at a young age.

He took an entry-level job in aviation and had a career-oriented vision to contribute to the industry's growth and development. From his first days as an apron loader and delivery boy to his current role as corporate health and safety manager at Goldair Handling, Panagoulias has enjoyed the journey.

"I feel lucky because Goldair Handling trusted me and supported me by many means," he says, noting the company's support through training, coaching, seminars and more.

Panagoulias' career is a prime example of the opportunities afforded by ground handling for those who become a student

of the industry. He has relished the experience and the variety that has come with his line of work. Given the chance to learn something new every day, he says the industry is never dull.

"This is what attracted me to a lifelong career in aviation and ground handling," Panagoulias says.

In recognition of his professional achievements and contributions to Goldair Handling, Panagoulias has been named the 2023 *Ground Support Worldwide* Lifetime Achievement award winner.

Roots from the Ramp

Panagoulias began his career in the aviation industry in 1996. Working for an airline, he was an apron loader, baggage handling system (BHS) loader and cleaner.

Cover Story

Michalis Panagoulias (holding the award) began as a delivery boy at Goldair Handling before earning several promotions, including his current position as corporate health and safety manager.



Two years later, he started working as a delivery boy at Goldair Handling, transporting passenger luggage between the airport and customers' homes or hotels.

"After that, I became a ramp agent and a year later, I became a supervisor ramp agent," Panagoulias says.

He was then promoted to senior supervisor of ramp handling, responsible for all ramp handling departments and activities.

When Goldair Handling relocated to the new airport "Eleftherios Venizelos" in Athens in 2001, Panagoulias was promoted to ramp duty manager. Six years later, he was named Athens Airport station manager – a position he held through 2010.

Panagoulias spent a year and a half at Goldair's headquarters in the finance and commercial departments and then moved into the firm's corporate health and safety manager position.

"During my career as a safety manager, I joined the IATA GSEE Task Force and IATA ASG Task Force as an active member," he says. "Now, I am an active member of the new IATA Ground Operations Standards Working Group joining the Management and Safety sub-group."

"When an executive develops during his professional life, he is undoubtedly characterized by possibilities and abilities that emerge, mature and ultimately yield over time. At the same time, I believe that specific elements of his character played and play an important role in Michalis' success," says Goldair Handling CEO Dimitris Papamichail. "So, apart from the ethos I mentioned above, competitiveness, combined with a smile and calmness, distinguish him in his daily life."

A Safety-Focused Perspective

On his path to corporate health and safety manager, Panagoulias has had many learning experiences and has gained a deep perspective of the importance of following correct standard operating procedures.

"Most accidents in ground handling occur because procedures are not followed," he notes, adding lack of training, supervision, safety culture, resources or oversight can contribute to these incidents. "Of course, the top management of each company has a crucial role to play providing appropriate resources to achieve the goals and to create a safety culture within the organization."

However, despite some inherent risk, Panagoulias says aviation careers are great opportunities for those who like meeting a broad, diverse range of people. He has enjoyed working with many driven, goal-oriented, talented people and learned a lot from working with them.

"People are the most important asset for every company. People need training, coaching and trust by their supervisors and they will give much more of what they are supposed to give," Panagoulias says. "Managing people is a challenge, especially the new generations. They want to speak, and we must hear them and communicate with them regardless of their experience in our industry.

"In many cases brand-newcomers give solutions that we never thought about," he continues. "Just hear them and communicate with them. You will gain many things."

Everyone has valuable skills, Panagoulias adds, so, it's important to keep lines of communication open. During his career, Panagoulias has worked to become a better communicator and listen to his colleagues when they have questions or concerns.

"I am very happy when employees from different departments come to my office or find me on the ramp and want to ask me something about a procedure or a safety concern/ hazard or want to communicate and take directions from me on how to manage problems or concerns they face," he says. "Even if I am tired or overloaded, my office is always open to hear and to communicate with everybody. My moto is 'communicate and hear – this does not cost money."

Panagoulias also says all employees deserve respect, regardless of their work style or personality. By lending that respect to everyone, Panagoulias has been able to get the most out of his team.

His own first-hand experience in the industry has also been helpful as he works with others.

"I feel my time around ground handling has provided me with a unique perspective of aviation because I have a clear understanding how it works," Panagoulias says. "I feel lucky because I started from the bottom and had the opportunity to understand

Cover Story

all the ground handling activities either as an apron loader or a BHS loader or as a cleaner and a ramp agent."

With his broad range of experience, he has become a ground handling guru and expert with safety management system (SMS) elements, which helps him convince team members who might question a certain way of doing something.

"The fact that I can convince difficult employees to follow procedures makes me very happy," Panagoulias says.

Of course, a career that has spanned decades and has included many job titles will include challenging tasks.

For example, when Panagoulias was serving as a senior ramp handling supervisor, he was tasked with relocating all of Goldair Handling's ground support equipment to Eleftherios Venizelos.

"It was a very stressful situation because I had no experience at all. I had to communicate and collaborate with police to close all the roads and streets, to communicate with the truck drivers to understand and follow all safety measures, with the insurances about the risks of this project and of course with our staff to support the project, keeping the timelines," he recalls. "I didn't sleep for many days."

Fortunately, the project went smoothly and was ultimately successful.

When he became safety manager, Panagoulias was tasked with creating Goldair Handling's SMS.

Up for the challenge, he began researching articles, legislation and SMS manuals. He attended related training sessions, seminars and conferences to gather as much information as possible to set his organization up for success.

"Today, we have an effective SMS in place which is totally recognized by all our stakeholders," Panagoulias says.

Reflection on a Diverse Career

At this stage of his career, Panagoulias has seen the ground handling industry evolve in interesting ways. He reflects on updated approaches to centralized load control, flight documents via ACARS, autonomous equipment, among other changes, but he says standardization practices stand out the most.

For many years, Panagoulias recalls, every airline had different procedures for various tasks – like chocking and coning, for example.

"Ground staff was easily confused. I remember that we had findings during audits by airlines because ground staff didn't remember the chocking and coning procedure of the airline, even though they were briefed," Panagoulias says.

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"Standardization is mandatory to decrease incidents and accidents on ramp and of course airlines and manufacturers must support standardization of ground handling procedures as well."

Another change in aviation is the electronic reconciliation of baggage at the BHS and the ramp while loading.

"I remember myself counting each luggage, looking at each luggage tag to confirm the destination, and the flight number," he says. "Baggage reconciliation saved time, money and claims, and hopefully this is a procedure that is followed by almost all airlines."

Reflecting on his personal career, there have been somber moments as well.

"A memory that I will never forget is the fact that I was the last person of Goldair Handling that left from the old airport at 4 in the morning," he says. "Everybody was at the new airport, and I walked through all our offices, but nobody was inside. I was totally alone, only with two policeman. I switched off all lights, locked all doors and left, crying. This is unforgettable."

Panagoulias was also chosen by Goldair Handling management to represent the company in the aftermath of the Helios Airways crash in Athens.

Overall, Panagoulias has many more positive memories than negative ones. He recalls a time he was working as a ramp agent overnight and was met with a unique challenge. He was scheduled to handle four flights that night, but two colleagues didn't report for their shift. Ultimately there were seven flights to be handled in a short time without additional support.

"I managed to handle seven flights in a timeframe of four hours without any delay, safety issue or complaint from the airlines," he says.

A congratulations letter was sent to Panagoulias' manager for the outstanding performance and this story remains a source of pride.

That night, handling seven flights, is a fitting example of the attitude Panagoulias has applied to his work. He has focused on working hard, dedicating himself to a task and fully honoring commitments. He encourages the next wave of ground handling professionals to do the same.

"Life is not easy," Panagoulias says, stressing the importance of trying hard. "Set targets in your life. Never give up."

"All I wish for Michalis is to continue to be himself and to inspire his younger colleagues," says Papamichail "I personally feel happy that I was lucky enough to have him in our team, but I also feel proud of his professional career because I believed in his value, and he justified us in every project we agreed to undertake." **GSW**

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International

Africa's Opportunities and Obstacles

How ground handlers across the continent can overcome challenges and grow alongside airline operations.

BY MARIO PIEROBON

pportunities for the ground handling sector abound all across Africa, but at the same time economic and political instability in some African countries can affect the growth prospects of the ground handling sector.

According to Vees Lochan, chief operating officer at Airlines Association of Southern Africa (AASA), the African continent offers opportunities for the ground handling sector to grow alongside airline operations.

"The potential for air travel in Africa is huge. Presently Africa with 17 percent of the world's population only contributes about 2 percent of total global travel. Air connectivity on the continent can be vastly improved. The boom in air travel in Africa is bound to materialize and with it will result in opportunities for the ground handling sector to grow," he says.

"The implementation of the Single African Air Transport Market (SAATM) will definitely lead to increased levels of air traffic, but the primary obstacle remains the limited connectivity between most countries in Africa," Lochan continues. "Protectionism is also another major obstacle because it means that countries are prioritizing state-owned airlines over national economies. Countries need to be liberal in their admission policies with respect to air travelers, especially for fellow Africans who should be encouraged to travel visa-free within the continent. By so doing, traffic increases and tourism will prosper, the economy will grow,

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jobs will be created – a win-win scenario for all."

Opportunities and Obstacles

Rising traffic and resultant demands for more efficient and modern ground handling services means real opportunities lie in general aviation (GA) handling, according to the UAS International Trip Support Africa team.

"GA flight traffic is fast-growing and becoming popular throughout the African continent. It comes with its own unique and complex requirements especially when it comes to business/ VIP flights. Several countries in Africa have recently undertaken major airport development, prompted by an increase in flight movements into the continent, and this has presented an opportunity for additional ground handling companies and for existing ones to grow," UAS Africa team members say.

"New, large airport terminals recently opened in Ethiopia and Tanzania, for example, and opened for additional ground handling companies, hence creating competition and a reason for the current handlers to upgrade their services and quality of service delivery," they add. "The general increase and projected increase in air traffic in Africa has played a big part in growing the ground handling business."

Concerning the obstacles to the growth of the ground handling sector, the UAS Africa team believes that one main obstacle is the stagnation of airport infrastructure.

"Many airports in Africa are small with limited capacity for large aircraft and this inhibits ground handlers from investing in ground support equipment (GSE) or in growing their businesses," say UAS Africa team officials. "Another obstacle at many airports is a competition for space. Many airports have just enough space for parking of aircraft and would not accommodate more than a handful of handling companies. In addition, some states still have and encourage monopolies in the ground handling space, thereby limiting entry of potential participants and investors that could encourage growth.

"Finally, the poor state of African economies especially after the COVID pandemic has made them unable to prioritize airport development to the disadvantage of the possible growth of ground handling."

Infrastructural Developments

Several countries in Africa are investing in the expansion and modernization of their airports, which can create opportunities for the growth of ground handling services, observes Swissport officials.

"There are many projects for new airports or modernizations/extensions across the continent, which are necessary to accommodate the planned growth in air traffic, for example Kumasi, Ghana, Bugesera, Rwanda, Entebbe, Uganda, and Luanda, Angola," Swissport representatives say.

Currently, some international financiers are supporting the development of mega airports in Africa to create more efficient trading avenues through wide-body aircraft, explains the UAS Africa team.

"Rwanda is building a new and much larger airport 40km from Kigali and this will undoubtedly attract more flights, grow the existing ground handling companies and probably attract more," UAS Africa team officials say. "With the help of Middle East nations, Somalia has attracted new airport development projects especially in the northern regions, which are deemed more politically stable with less security risks. This is likely to bring in more flights to the region causing ground handling ventures to grow."



African countries are investing in the expansion and modernization of airports, which may create opportunities for the growth of ground handling services.

Uganda's Entebbe International Airport is undergoing a major upgrade and expansion, which will include the revamping of its runways, construction of new passenger terminals and a new cargo center, the UAS Africa team affirms.

"The renovations are expected to increase passenger traffic and freight at the airport. Airports in Sierra Leone, Guinea Conackry, Guinea Bissau, Senegal and Niger have all been going through modernization and expansion towards increasing traffic and creating more opportunities for ground handling," UAS Africa team members say.

Airports constantly invest in capital projects in terms of capacity and technology to satisfy the growing demand, points out Lochan.

"Air traffic in Africa has not yet achieved pre-pandemic passenger levels so the infrastructure suffices for the moment. An increased level of investment in airport infrastructure developments in Africa will come as the industry recovers and even grows beyond the pre-pandemic levels," he says.

Joint Venture Opportunities

Foreign ground handling companies are present in Africa and are in partnership with local companies in certain instances to deliver ground handling services, observes Lochan.

"They provide the necessary expertise and capital to operate very successful ground handling services companies. Partnership with local companies will result in mutual benefit. Foreign investment and the provision of equipment opens doors for doing business in the ground handling sector," he says.

Regulations on partnerships vary between countries. But for the majority of Africa, it is relatively easy for foreign companies to set up ground handling services, according to the UAS Africa team.

"Some countries' regulations require partnerships of foreign handlers with local companies, which has not been a problem. Where such partnership is allowed by choice, many local ground handlers prefer to partner with well-established foreign handling companies to create a wider business network," say officials with the UAS Africa team.

The standards of ground handling at airports in Africa vary widely, observes Swissport representatives.

"The infrastructure and facilities for handling passengers/cargo in some airports remain inadequate or dilapidated. Joint ventures with local companies are possible with all attached risks and opportunities," Swissport officials say. "In some countries having a local partner is mandatory. But in general, partnering with a local company, helping to understand local rules and regulations, can be a key factor for success in delivering ground handling services in Africa."

The main strength is the youth of African population and a qualified workforce ready to be trained in the ground handling field of activities, according to Swissport officials.

"The African youth is willing to work, eager to learn and international handling companies can provide them with career opportunities The African ground handling staff is often wellversed in the diverse cultural norms and practices of the region," Swissport representatives say. "This cultural sensitivity is beneficial in dealing with passengers, crew and other stakeholders from different cultural backgrounds, ensuring smooth interactions and efficient ground handling operations."

International

The compliance with regulatory requirements for aircraft ground handling, including safety and security regulations, may vary across African countries, affirms Swissport leaders.

"Inconsistent regulatory practices can pose challenges in ensuring standardized and consistent ground handling operations. The vastness and diverse geography of Africa can pose challenges. Remote or inaccessible locations and limited connectivity can impact the speed and efficiency of ground handling operations, especially



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For the majority of Africa, it is relatively easy for foreign companies to set up ground handling services.

in remote or less developed regions," Swissport officials say.

According to the UAS Africa team, the lack of standardization represents a limitation.

"Airports of the same size will have different GSE and standards. In addition, many airports in Africa are government-owned and funded, and with the global economic challenges that affect many governments, funding for maintenance and improvement of airports may be limited," say members of the UAS Africa team.

According to Lochan, high costs, the complex regulatory environment and erratic economic growth are indeed common in the ground handling sector in Africa.

"GSE is purchased in hard currency, this contributes to the high cost of ground handling services in Africa," he says. "The potential to prosper in the African aviation industry and the implementation of SAATM will provide opportunities in the ground handling sector." **GSW**

ABOUT THE AUTHOR

DR. MARIO PIEROBON 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-allin-one.com.

Ground Service Providers

How to Acquire a SIDA Badge

While the badging process can vary from one airport to the next, SIDA badge holders are the 'eyes and ears' of airport security.

o access different areas of the airport, different badges are needed.

For anyone at an airport who has an operational need to access a security identification display area (SIDA), a SIDA badge is required.

This badge is typically issued to people who work beyond the screening checkpoint in the sterile area and includes baggage handlers who work on and around aircraft, among others.

BY REBECCA KANABLE

To obtain a SIDA badge, applicants must pass a security threat assessment (STA) and a fingerprint-based criminal history records check (CHRC) as well as SIDA training. While a SIDA badge is required by the Transportation Security Administration's (TSA) Airport Security Program, it is the airport operators that issue SIDA badges.

"The badge itself is very much an airport-specific issue," says TSA press secretary R. Carter Langston, noting the role of TSA is to conduct vetting and background checks against FBI and law enforcement databases, as well as recurrent vetting for those who are badged.

To address risks associated with insider threats, TSA vets more than 25 million transportation workers daily against the federal terrorism watchlist. Transportation workers include airport workers, airline flight crewmembers, mariners, commercial drivers who haul hazardous materials and cargo



Ground Service Providers

screeners and handlers. Langston explains the aviation sector represents the vast majority of the transportation workers vetted by TSA.

Although airport security programs are regulated by TSA, there can be some variation among the airports, for instance, in how information is presented.

SIDA Badging at PHX

Phoenix Sky Harbor International Airport (PHX) described its badging process online during a virtual session of its 2022 Aviation Business Summit.

"The security badging process is the most important step you and your employees will take working at and with our airport," says Shawna Larson, former deputy aviation director of safety, security and emergency preparedness programs at PHX, now assistant city attorney for the City of Phoenix.

At PHX there are about 18,000 badge holders, who Larson says are the airport's "eyes and ears each day."

"See Something, Say Something" responsibilities begin the minute you and your employees receive your airport badges," she says.

Paul Berumen, special projects administrator, security and airport security coordinator – regulatory, says the airport is often asked why a badge is necessary.

Shortly after the September 11th terrorist attacks, Congress passed the Aviation and Transportation Security Act, creating the TSA and requiring fingerprint background checks of personnel that require unescorted access in the SIDA or sterile area.

"It's a 10-year look back," Berumen says, noting Congress also outlined the criminal offenses that would disqualify someone from being issued a SIDA badge. Of the 36 disqualifying crimes, Berumen says theft (felony) and sale of prohibited drugs (misdemeanor or felony) are among the most common.

Last year, TSA implemented the FBI recurrent criminal history vetting service known as "Rap Back" to provide near real-time notification of new, potentially disqualifying criminal events that enable TSA and airport and aircraft operators to revoke an individual's unescorted access.

"That's an additional check in which all of our badge holders will be in the FBI criminal history vetting 24/7," Berumen says.

The Security Badging Office at PHX provides its business partners and their employees with badging and fingerprinting services. Existing companies who are enrolling new badge holders or renewing existing badge holders can use a secure online system.

New companies will need to visit the Security Badging Office and complete New Company Setup application forms.

All companies must have an "authorized signer" (AS) or point of contact between the badging office and the company's employees or job applicants.

Berumen outlines several keys to success while working with the badging office. They include having a dedicated authorized signer (not someone assigned the responsibility as an additional duty),



who is knowledgeable about the process, active and engaged with the airport and their company, and in regular communication with badge holders.

"We ask that you educate the applicants or your personnel on what to expect when they come to the badging office," he says.

Kamila Kisova, aviation supervisor III at PHX, says the process starts with the AS submitting an electronic application to the badging office.

"It is very important that authorized signers pre-enroll or renew applicants and then advise the applicant or badge holder to schedule an appointment to come into the badging office," she says.

To keep the process going smoothly, she says authorized signers should be sure to enter accurate data.

At the appointment, which takes about 15 minutes, the badging office will verify information – including ID, authorization to work, and that the applicant has read and understood the application forms and has no disqualifying crimes; scan documents; take fingerprints and collect payment. Once these things are done, a temporary badge will be issued for 30 days, which allows the applicant to begin working while escorted by someone with escort privileges.

After badging office submits paperwork to the FBI and TSA, Kisova says background checks typically take 7 to 10 business days.

Once the applicant's background is cleared, training videos are sent to the applicant. The non-secure training online is followed by in-person security training at the badging office, which takes 1.5 to 2 hours.

Applicants have 30 days from the notification date to complete all training and have a badge printed. Airline-sponsored applicants are notified of this clearance through the airline.

Once all the steps are completed, the airport can issue a SIDA badge.

"Our business practices and fees may be different, but airports that issue SIDA badges have the same TSA regulatory requirement," says PHX public information manager Tamra Ingersoll. "We are unique in that PHX issues a temporary badge, which allows the applicant to be escorted while they undergo the clearance process, and our (initial) training has been deemed to not be Sensitive Security Information (SSI), so training can be done remotely on our online platform."

SIDA Badging at SEA

Seattle-Tacoma International Airport (SEA) has an educational image that illustrates the steps to apply for a new badge. Configured like a board game, each step has a link to more information.

Lauren Curtis, senior manager in aviation security, oversees the badging process at the Port of Seattle Credentialing Center.

If SIDA badge applicants need access to the international arrivals facility, there is a different application process for a customs seal. The U.S. Customs and Border Protection (CBP) office issues and manages customs seals for individuals requiring access to CBP security areas.

Not everyone needs a customs seal, but Curtis says a SIDA badge is required in order to get a customs seal. The security check goes through the credentialing center but is vetted by CBP, she adds.

The background process on average takes 2-4 days. However, foreign-born applicants typically see a 2- to 3-week delay in receiving a result.

"We have a very diverse badge population here, English is spoken as a second language for a good percentage of our badge holders," Curtis says.

After the background checks are cleared, training can begin. If an applicant needs help preparing for SIDA badge training, Port Jobs, a contracted agency, offers preparation classes. They are in-person and about 2 hours long. Although the SIDA test is in English, the training helps people understand in their own native language what it means to get a badge and introduces security concepts such SIDA, AOA (air operations area), the secured area, and terms like piggybacking and challenge.

"These terms are known in our industry and are required as part of the badge process," Curtis says. Once a badge is approved, employers cover the cost of the badge and the badge is good for two years.

"Everything is regulated by TSA," Curtis says. "When you become a badge holder, you're required to, for example, challenge somebody if you see somebody working inside the SIDA that doesn't have a badge, you are responsible to say, 'Where's your badge?' We're audited by TSA every year. What we say at SEA is each badge holder are the eyes and ears of security. Everybody does their part to keep us secure." **GSW**

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Product Profile

The Benefit of Uniting Ground Power and Conditioned Air

AIRBUS A3200

Guinault's GF15 Combo model combines the functions of a GPU and ACU into one unit designed to lower emissions and operating costs.

wwww.hen ground support equipment (GSE) with electric motors or diesel engines can be utilized to power and cool aircraft on the ground, it allows the plane's auxiliary power unit (APU) to be turned off. With less jet fuel being consumed at the gate, environmental factors and airlines' operating costs improve.

To assist with this, Guinault has developed a combination air conditioning unit (ACU) and ground power unit (GPU). The G15 ACU/GPU combines the advantages of an air conditioner and generator and benefits from the technical developments Guinault has achieved over a timespan of more than 60 years.

According to Lionel Clermont, Guinault's president and CEO, GPUs for decades have been a primary energy source for aircraft on the ground and air start units (ASUs) have been necessary only in the case of an APU failure. ACUs have been viewed as an option, in hot weather.

Today, Clermont says that's changing.

"ACU is becoming mandatory, together with the GPU, and in certain cases ASU, as we are looking for a substitution to the APU," he says.

"Having the GPU and ACU combined in a single unit appears to make sense, as both functions are simultaneously required in most of the cases," Clermont says, noting the combination offers operation savings for fuel, handling and maintenance. "The expertise of Guinault in electronics, alternators and thermodynamics was the necessary tool to make it right."

The ACU/GPU combo provides aircraft power (400 Hz or 28 VDC) and aircraft air conditioning -- either separately or simultaneously.

The ACU maintains the correct temperature in the cockpit and cabin during pre-flight operations, boarding and maintenance. The unit adapts its flow and cooling power to a variety of aircraft types, weather conditions and airline requirements in terms of cabin temperature and ventilation. It also helps meet the needs and requirements of code B and C civil aircraft in continental, tropical or desert climates. Lastly, the ACU dehumidifies the air to avoid frost in the heat exchanger.

While the idea of having a combo unit is not new, Clermont says this unit is notable because of the dual voltage alternator.

"The concept does not require any sensitive and complex frequency converter, is easier to maintain and is more reliable," says Clermont, noting the Guinault combo unit entered the market in 2016 and was improved in 2019 with a more efficient cooling concept.



One of the benefits of combining two units into one was one-person operation for two functions, resulting in reduced handling, fuel, power consumption and maintenance.

And that's the main advantage, he says. A diesel-driven combo unit ensures up to a 90 percent carbon emissions reduction over an APU. An electrically driven solution will ensure an additional offset of 5 to 10 percent, depending on the carbon content of the electrical power.

The combo unit is reliable because it uses a two-stage cooling circuit with the dual voltage alternator. No frequency converter is required.



The modular construction of the GF15 Combo Unit optimizes maintenance access.

One single, user-friendly human machine interface (HMI) with smart features allows fast cooling, the ability to stop the machine in a short time and no-frost operation through a dual stage cooling system. Detailed technical remote monitoring and a log of events ensures good technical support from the manufacturer. What's more, low pressure fluid ensures compatibility with the clean refrigeration gas that has already become mandatory in other industries.

The GF15 Combo unit is most ideal for narrow-body aircraft and can be used for aircraft up to the Boeing 737 and Airbus 320 (Code C).

If the ACU is rarely needed, Clermont says the combined unit might not be the right fit.

Options for the GF15 Combo unit include a heating mode, 400 Hz / 200 VAC power supply, 28 VDC power supply and cold temperature kit for start-up in temperatures below -25 degrees C.

Guinault has been supplying electric current to aircraft since 1949. The generators of that time mainly supplied continuous electric current at 28 volts. In the early 1970s, as the first 400 Hz aircraft landed in Europe, Guinault was asked by its airline customers to manufacture a 400 Hz GPU. Later in the early 1990s Guinault began manufacturing multi-voltage GPUs based on multi-coil alternators. That allowed for a very compact unit, which was highly appreciated for military use.

Today, Guinault still designs and manufactures its alternator in-house.

"The alternator expertise has become a key success factor in the GPU, and later in the combined ACU/GPU. The combo unit would not have existed in its robust and reliable form without a dual voltage, unique Guinault alternator," says Clermont.

Based on the company's ability to innovate and understand military requirements, Guinault in 1993 designed a compact air conditioning unit for aircraft manufacturer Dassault.

In 2000, an electric ASU joined Guinault's GPU and ACU equipment lineup. With its 1,300-2,000 rpm variable engine rpm operation, the electric air start unit concept offers fuel savings compared to a conventional ASU fitted with a pneumatic air controller, Clermont says.

"As we found that we could bring 30 percent savings through our innovation in the electronic control of the compressor, we decided to come with a new ASU," he says.

Guinault came out with an ACU/GPU and ACU range of products as the company understood it could bring relevant savings and enhanced performance to the ACU, within a combined unit based on the dual voltage alternator.

"ACU is a natural step beyond the ASU, as both units are based on compressors and use the thermodynamics rules. Guinault stays on the APU-off path, and aims to come with different products, based on deep in-house technological expertise: alternator, power electronics, thermodynamics and refrigeration," Clermont says. **GSW**

Product Hangar

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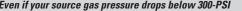
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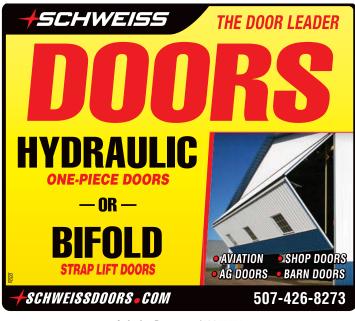
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Ground Support Spotlight

Spotlight on: **Steve Berry**

BY JOSH SMITH

Ground Support Worldwide: What attracted you to a career in the ground support industry?

Steve Berry: My origin story is simple and began on the recommendation of a friend instead of an existing love and passion for aviation. I was a junior in high school, busing tables at a local restaurant when a friend told me the local airport was hiring. Since I also didn't have a passion for clearing dishes, I went to the airport and filled out an application. Within a week or so I'd entered my decades-long career in the general aviation industry as a line service technician.

GSW: What has kept you engaged in the industry?

SB: When I was working the line, I was drawn to the "cool factor" of working around airplanes. I enjoyed both the responsibility that comes with working with aircraft and the satisfaction of knowing what I did mattered. None of my buddies at the time could say they spent their weekend handling multi-million-dollar jets. After my time working the line, I left the ground handling world for a few years but came back because of the potential for job security. In 2009 I took a job with Eastern Aviation Fuels (now Titan Aviation Fuels) and never looked back. I thought then, and still do now, that any company hiring in the midst of a recession is a pretty good indicator of the industry's long-term prospects.

GSW: What's the best advice you've been given while working in this field?

SB: "You know more than you think you do." When I first started teaching seminars and workshops, I'd get so anxious and nervous about presenting... I imagined that someone in the audience would tell me I didn't know what I was talking about or that I didn't belong leading a class. Michael Mattern, my boss and mentor at the time, reassured me that I knew more than I thought I did, the audience was there to learn from me, and I wouldn't be at the table if I didn't belong there. Sound advice that I still follow.

GSW: How have you seen the ground support industry change the most?

SB: The maturity of the industry when it comes to training and safety has changed the most. When I first started on the ramp, training was basically on-the-job – following the senior guys and doing what they did. There was no formal process around training. Much of the move toward standardization has been led by NATA through our Safety 1st training program and company leaders who understand the value of investing in a robust training prgram.

Also, the adoption of safety management systems (SMS) in the ground space is another indicator of the maturity we're now seeing.

GSW: What's the next big thing coming to the ground support industry?

SB: The move to fully embrace tech to make smarter, safer ramps. The GA ramp has been an analog place for much longer than the rest of the world. Now, that old-fashioned way of thinking is changing rapidly with NATA member companies leading the way. Our partners at NDX, for example, have pioneered some incredible solutions using proximity-based technology for managing fuel quality, ground operations and collision prevention on the ramp. I encourage you to check them out.

GSW: What type of an impact will it make?

SB: It's all about being proactive rather than reactive. The integration of smart tech allows for the benefits of real-time observations, analytics, alerting and reporting to be realized on the ramp in ways never before possible. By in-



Job Title: Managing Director, Safety and Training

Company: National Air Transportation Association (NATA)

Location: Washington, DC

Years of Experience in Ground Support: 21

Years with Current Company: 6

Previous Employers in the Industry: Eastern Aviation Fuels, Stuart Jet Center, Fort Pierce Jet Center

Industry committees, associations, working groups served on:

NATA Safety Committee 2017-Current NATA GA Fuel Handling Subcommittee 2019-Current

El Aviation Committee (AvCom) 2020-Current

ATA 103 Working Group 2021- Current NFPA 407 2021-Current

NFPA 418 2021- Current

SAE 5-C Aviation Ground Fueling 2022-Current

Aviation Insurance Association Safety Committee 2022- Current

creasing the level of insight into ramp operations, we can identify trends and issues before they develop into incidents and accidents.

GSW: What would you say to encourage someone to join the ground support industry?

SB: Jump in – the opportunity for growth and advancement is wide open. When I first started working the line back in 2002, I never imagined then that I would be where I am today. I am proud to be a part of a fantastic industry full of great, supportive people. **GSW**



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