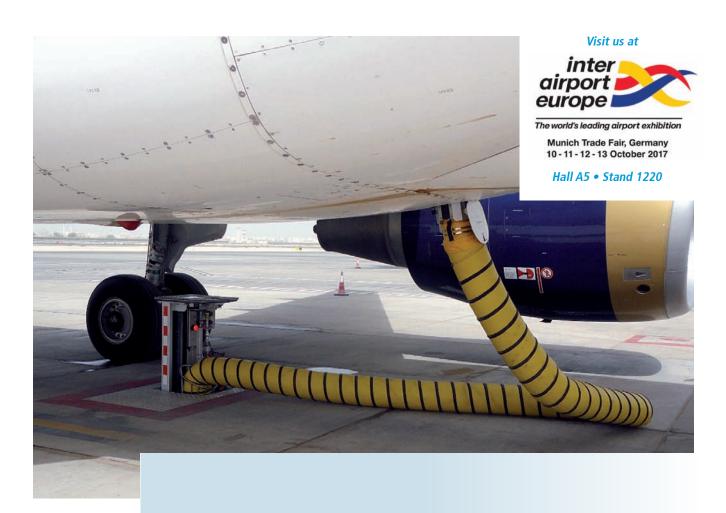
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- ► London Luton's Collaborative Effort to Reduce Congestion
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- ► Can KLIA's Aeropolis Project Make the Malaysian Airport Asia's Logistics Gateway?
- ▶ Why Airline Capacity to Cuba is Falling Off



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

We're Going Global

elcome to the Global Issue of Ground Support Worldwide. We are excited to launch what is going to be our annual Global edition.

Throughout the year, we try to touch on as many different topics and regions across the global ground support community as possible. But in this issue we have really ramped it up! No pun intended.

We hope you enjoy this extended international coverage.

Ground Support Worldwide will always be the largest ground support equipment, ground handling, ground services and ground operations magazine in North America, but now we are also the largest in the world.

Ground support isn't just about equipment. The way operations are done is different today, and it will be different tomorrow and well into the future.

Ground Support Worldwide magazine stays on top of what is important to the industry, no matter the location, so that we can be a source that readers trust and rely on for pertinent information.

As always, thank you for reading!

Melin 1. 2

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BUSINESS BUZZ

TOP NEWS

Clay Lacy Aviation Earns the First North American IS-BAH Stage II Registration

Gateway USA, LLC doing business as Clay Lacy Aviation, LLC (CLA-Seattle), was granted the first Stage II IS-BAH registration in North America. CIVA VIVO

"Our congratulations go out to

the management and teams at Gateway USA, LLC facility for their continued support and dedication to the IS-BAH program. The first Stage II North American registration is a significant milestone," said Terry Yeomans, IS-BAH program director.

"Safety is the foundation of our culture. The IS-BAH standards were developed using 'best practices' used widely in the international business aviation community and, as such, reflect the high level of operational safety that we continuously work to achieve," Chuck Kegley, the general manager of Gateway USA, LLC dba Clay Lacy Aviation, LLC stated.

The IS-BAH is a set of global industry best practices for business aviation ground handlers, featuring at its core a safety management system (SMS).

IATA FIATA Air Cargo Program Launches In Canada

The new IATA FIATA Air Cargo Program (IFACP)

has been launched in Canada. The new program, which will be rolled out globally following the Canadian pilot, replaces



Air Cargo Program

the existing Cargo Agency Program, and will be jointly managed by forwarders and airlines as equal partners in the decision-making process.

The new IFACP Freight Forwarder Agreement shall govern the relationship between freight forwarders and air carriers participating in the program.

"Simplifying the governance structure reduces the administrative requirement to manage the program," said Juan Antonio Rodriguez, IATA Director FDS Operations. "Given that more than 80 percent of transactions are performed by freight forwarders acting as principals, the proposed IFACP better clarifies and validates the business through a buyer-seller relationship."

"FIATA is pleased that the implementation phase is now a reality, a true testament to the hard work and sustained efforts of both forwarders and carriers over the past few years," said Keshav Tanna, incoming chairman of FIATA's Air Freight Institute. "We are optimistic that the IFACP will foster innovation to deal with the commercial challenges facing the air cargo industry."

Hactl Introduces VR Training

Hong Kong Air Cargo Terminals Limited (Hactl) has introduced a virtual reality (VR) training environment that will enable new staff to gain valuable experience before working in the challenging ramp environment.

Hactl's COSAC-VR provides users with an interactive, fully immersive, 360-degree, four-dimensional experience. The first phase

covers aircraft cargo compartment operations, and other areas of Hactl operations will be included in future modules.



"In the past, newly-recruited ground service staff had to undergo extensive classroom training before experiencing the real-life aircraft cargo handling environment. COSAC-VR has reduced the reliance on real aircraft availability and suitable weather conditions for training, and trainees meanwhile can undergo work simulations in a totally safe environment," said Simon Yap, Hactl's senior manager - learning and development. "We have greater flexibility in scheduling training, so trainees can spend more time in familiarization before they face the real-life situation."

"Today's young recruits are already wellversed in VR technology through their use of computer games. We believe this same technology can be employed to capture their interest and enthusiasm, and turn learning into an enjoyable experience," added Hactl chief executive Mark Whitehead.

LSG Sky Chefs Begins Fueling With Clean Energy

Clean Energy Fuels expanded its clean natural gas fuel to the catering trucks that provide food and beverages for aircraft as the company Sky Chefs announced that LSG



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AXA POWER HOBART HOUCHIN J&B AVIATION MILITARY

Sky Chefs will use Clean Energy stations to power a new fleet of compressed natural gas (CNG) vehicles at DFW International Airport.

The new fleet of 20 CNG catering trucks, is anticipated to use 50,000 gasoline gallon equivalents (GGEs) each year and will be able to fuel at Clean Energy's existing station at DFW. The purchase of the trucks was supported by a grant from the Texas Commission on Environmental Quality (TCEQ) to replace LSG Sky Chef's aging diesel fleet.

"By using alternative fuels such as natural gas, we can cut our greenhouse gas emissions while continuing to offer world class service," said Todd Liddle, director of last mile logistics at LSG Sky Chefs.

Arik Air Receives IATA **Ground Operations** Certificate

Arik Air, West and Central Africa's largest carrier, has become the latest African airline to be listed on the International Air Transport Association (IATA) Ground Operations Manual (IGOM) registry.

The IGOM certificate was presented to Arik Air on Aug. 2, by the Regional Vice President, Africa and Middle East, Albakri Mohammad Ali at Arik Air Aviation Centre in Ikeja, Lagos. The IATA Ground Operations Manual concept was initiated by IATA for the industry with the objective of having one internationally recognized standard for ground handling processes.

"We are highly elated to be among the airlines listed on the IGOM registry. This listing shows our commitment to operational efficiency and our customers can always expect excellent travel experience from Arik Air," said Arik Air CEO Roy Ilegbodu.

Universal Aviation UK Now IS-BAH Accredited



Universal Aviation UK. based at London-Stansted International Airport (EGSS) has passed an International Standard for Business Aircraft Han-

dling (IS-BAH) audit and is now an official

IS-BAH accredited location.

"This is an extremely proud day for Universal Aviation, and is official recognition of our efforts is reducing our clients' operating risk and stress when on the ground," said Sean Raftery, managing director, Universal Aviation UK and Ireland. "Our Universal Aviation Safety Team is committed to having the highest global safety standards and has worked tirelessly over the past two years to attain this mark of distinction for our location."

Universal Aviation Singapore is currently going through the IS-BAH accreditation process and more locations are scheduled in the coming year.

Sea-Tac Moves Closer to **Funding Aviation Biofuels**

Carbon reduction leaders Carbon War Room (CWR) and SkyNRG joined with the Port of Seattle to announce recommendations for long-term funding mechanisms that could supply all airlines at Seattle-Tacoma International Airport (Sea-Tac) with sustainable aviation biofuels.

The results are outlined in a study that reviews a broad spectrum of airport funding sources to cover the higher cost of biofuel, as well as biofuel supply chain infrastructure investments.

The two biggest challenges facing broader adoption of sustainable aviation fuel at Sea-Tac are the higher cost compared with petroleum jet fuel, and the constraints imposed by state and federal regulations on use of airport funds. The report reveals the financial tools available to U.S. airports, and outlines legal constraints and financial impacts of each tool. The report found that no single tool could generate enough funding to cover the higher cost of biofuel, and recommended combining a number of funding tools.

Menzies Aviation Completes ISAGO Audit Renewal

The successful IATA Safety Audit for Ground Operations (ISAGO) audit of Menzies Aviation recently took place. The ISAGO program is an internationally agreed-upon set of standards centrally managed by IATA.

This was Menzie's first audit under a new



sixth edition of ISAGO standards, and the first audit to verify ISAGO's new edition.

Auditors from KLM and Air Transat conducted a full-scope audit, assessing Menzies Aviation's organization and management, including all operational processes and procedures such as load control, passenger and baggage handling, aircraft handling, loading and ground movement, and cargo operations.

PEOPLE

SITA appoints Sergio Colella as President for **Europe**

SITA announced that Sergio Colella has joined the company as President - Europe, responsible for driving a refocused strategic direction for the

region. Reporting to CEO Barbara Dalibard, he will be based in Geneva,

Switzerland and will be part of the Executive Team.

Colella comes to SITA with an extensive background in managing complex, large scale international IT transformations within leading companies in several industrial sectors in Europe.

"As we reshape SITA it is important that we inject, where appropriate, new talent with new perspectives to fuel our future success. Sergio brings a wealth of experience in managing large IT transformation projects. His enthusiasm and fresh views will be important in driving the next phase of SITA's growth," said Dalibard said.

Shawn Cole Named Vice President of **Delta Cargo**

Delta Air Lines has named Shawn Cole, Vice President of Delta Cargo. Cole is



WE'VE GOT



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responsible for ensuring that the airline's logistics division continues to deliver on superior commercial, financial and operational performance.

"Shawn is a solutions-driven Delta executive of nearly 10 years," said Gareth Joyce, President - Delta Cargo and Senior Vice President - Airport Customer Service. "He has consistently motivated organizations to deliver maximum productivity, improve top-line growth and control costs through the most effective use of available resources and tools. This expertise positions Shawn to continue Cargo's successful momentum as well."

Most recently Cole served as Vice President - Finance and Corporate Planning, where he demonstrated his extensive experience in leadership, financial planning, analysis and team coordination.

TBD Welcomes New International Sales Manager

TBD, renowned for ground support equipment and specialist access solutions for the global aviation industry, has expanded its

team with the addition of a new

international sales manager. Jonathan Attfield.

"Jonathan joins TBD at a pivotal point. We have introduced several important safety innovations that will have

significant global impact on base and line maintenance operations. His established relationships with airlines and MROs will enable TBD to fast-track these solutions to the benefit of operators and airport authorities who seek robustly engineered equipment that can be relied upon in hazardous, harsh and hectic situations," said Gareth McAuliffe, business development manager at TBD.

Attfield began his sales career at Latchways PLC, where he spent nine years as product sales manager. He went on to join Granada Material Handling as its UK and European aerospace sales manager.

NEW DEALS



TCR Acquires Emerge Engineering and Maintenance

TCR announced the acquisition of Emerge Engineering and Maintenance, an Australian-based airport ground support equipment (GSE) services company.

Emerge has an operation spanning across 36 airports including six workshops at major airports and staffing over 60 employees' countrywide. In total, Emerge currently performs GSE services on more than 5,400 GSE assets nationally for key ground handling, airline and general aviation customers. GSE services offered by Emerge include repair and maintenance (R&M), breakdown recovery, GSE spare parts and GSE fleet management.

Day to day, the Australian business will continue to be managed by the existing executive directors of Emerge, Craig Ward and Martin Oldfield, with the continued focus on delivering added value to customers that has led to Emerges' growth over recent years. In addition and with TCR's investment in Emerge, extended services can be offered to further meet partners' requirements

dnata Providing Ground Handling at JFK Airport's **Terminal 4**

JFKIAT, LLC. - the company that operates Terminal 4 at John F. Kennedy International Airport - announced it entered into an agreement with dnata to provide ground handling services at the terminal.



dnata will coordinate ground handling services for a number of airlines at Terminal 4, including Etihad Airways, Volaris and Air Serbia, with combined annual turnarounds of more than 2,000 flights. To support this growth, dnata will invest \$3 million for infrastructure and resources, creating more than 100 new jobs.

"This new license for dnata is the result of our consistent track record for delivering the highest quality to our customers. Our commitment to safety, meticulous on-time departure and service excellence, globally, in the USA, and in particular at the terminals we already operate in within JFK, were all contributing factors to receiving this permit," said David Barker, CEO dnata USA. "We now have the opportunity to offer our award-winning ground handling services to all customers already operating at Terminal 4 and to further strengthen existing global relationships with our customers in this location."

WFS Increases Ground Handling Footprint at LAX

Worldwide Flight Services (WFS) has been

awarded three new ground handling contracts at Los Angeles International Airport (LAX).



China Southern selected WFS to provide ramp services at the airport for its 10 flights per week connecting Los Angeles and Guangzhou. Xiamen Airlines chose WFS' ramp services for its four-times weekly Boeing 787 flights. The third contract commenced on Sept. 1 when WFS became the ramp handler for Philippine Airlines' 14 flights per week between Los Angeles and Manila.

"Our success in winning these latest contracts in Los Angeles is once again due to our emphasis on safety and security, combined with our team's strong work ethic and reputation for service excellence. We are delighted that China Southern, Xiamen Airlines and Philippine Airlines has chosen to partner with WFS and shown their confidence in our operation at LAX," said Ray Jetha, senior vice



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president, sales and business development for WFS in North America.

IATA and A4A Launch Baggage Tracking Campaign

The International Air Transport Association (IATA) and Airlines for America (A4A) have launched a year-long global campaign related to baggage tracking with the goal of reducing mishandled bags in addition to increasing efficiency in baggage operations.

The baggage tracking campaign will help airlines prepare for the Resolution 753 (R753) June 2018 implementation deadline with a series of initiatives tailored to various stakeholders. These include regional workshops for key aviation entities and an awareness campaign for travelers.

An implementation guide developed by industry partners is also available. In addition, IATA is offering member airlines a readiness certificate to recognize them when they develop their implementation plan for R753.

"Implementation of baggage tracking is a collaborative effort between airlines and airports to improve the passenger experience," said managing director of passenger services at A4A Patty Edwards. "Airlines and airports are working together to ensure the infrastructure is available to provide this enhanced service to our customers."

Interjet and Swissport Canada Agree to Contract for YUL and YYZ

Swissport announced it will provide Interjet with comprehensive ground handling services including passenger and ramp handling, baggage services, operations coordination and load control.

The low-cost airline operates scheduled flights to Mexico, the Caribbean, Central America, North America and South America. Moreover, Interjet operates several charter flights throughout the American continent, mainly in the Caribbean.



"We know Swissport from prior experience, having worked together in the United States, Mexico and Latin America," said Jose Olmedo Franco, airports director at Interjet. "Coming into a new market, one that we didn't necessarily know, we felt it was important to partner with an experienced ground handler like Swissport on whom we could rely to ensure a successful take-off for our Canadian operations."

"We look forward to partnering with Interjet to ensure their operations in Canada is successful and long-lasting, and to promoting their future growth in this important market," added Olivier Matthey, CEO Swissport Canada.

BGS to Provide Fuel for Turkish Airlines in Boryspil, Riga and Vilnius

BGS, an international provider of ground handling and aircraft fueling services, has won a fuel supply tender for Turkish Airlines' operations in Boryspil, Riga and Vilnius International airports during 2017 and 2018. Fueling partnerships were extended in Boryspil and Vilnius International airports, whereas Riga's International airport is a new service location.

Fueling services will be provided until the end of April 2018.

"We are happy about the continuously expanding partnerships. Turkish Airlines has been our client since 2015 and we support carrier's activities in a number of serviced stations. I am glad that we manage to extend contracts, for us, these are the best indicators that partners are happy with the quality of services provided," said Linas Geguzis, chairman of the board at BGS.

Vanderlande Acquires **Optosecurity**

After working closely together for several years, Vanderlande acquired the Canadian software company Optosecurity as of June 29.

Optosecurity's software provides a platform for remote screening and data integration. The combination of this intelligent software with Vanderlande's automated passenger checkpoint solutions presents the opportunity for the new partnership to



become a leading integrator of passenger screening processes at airports.

"The acquisition of Optosecurity supports Vanderlande's vision of value-added integrated airport logistics systems," says Vanderlande's Executive Vice President Airports, Andrew Manship. "We expect the joint strength of Vanderlande's SCANNOJET automated passenger checkpoint solution and Optosecurity's eVelocity remote screening application to become the winning solution."

Optosecurity's CEO and President, Tim Mathews, added, "Optosecurity has a unique proposition for remote screening in passenger processing. As part of Vanderlande, we will be able to mature and expand our range of solutions. I am confident that Optosecurity will be an important and respected member of the Vanderlande family, and we will continue to serve our existing customer base and partners, as well as capitalize on new opportunities."

Vienna International Airport, Austrian Airlines **Extend Ground Handling** Contract

Vienna International Airport (VIE) and Austrian Airlines agreed to extend its contract for ground handling.

The agreement covers all aircraft handling on the apron, such as boarding and deboarding support with buses and passenger stairs, loading and unloading of luggage and catering, cabin cleaning and aircraft towing.

"An airline is only as efficient as its airport. That is why I am delighted not only for the good cooperation with the daily handling of around 370 flights with 33,000 passengers, but also for the fact that we have found a suitable commercial framework for our system partnerships," said Heinz Lachinger, CFO of Austrian Airlines.



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INTER AIRPORT EUROPE 2017:

Trend of the "Interconnected Airport" Opens Up New Possibilities for the Airport Industry

he 21st international exhibition for airport equipment, technology, design and services, inter airport Europe, will take place from Oct. 10-13 at the Munich Trade Fair Centre in Germany.

The trend currently driving innovation in the airport industry is the "interconnected airport," which is therefore in the spotlight of this year's show.

Three months ahead of the exhibition, approximately 620 exhibitors from 43 countries had already secured stand space. Exhibitor countries, besides Germany, include the USA,

France, Great Britain, the Netherlands, Italy, Denmark, Spain, Sweden, China and Switzerland. With around 31,000 square meters of net exhibition space, inter airport Europe has once again grown in terms of stand space compared to the previous event.

Exhibitors will present the most comprehensive range of equipment, technologies, design and services from all four exhibition categories: inter-RAMP (ground support equipment), interTERMINAL (technical terminal installations and services), interDATA (specialized hardware and software) and interDESIGN (architecture and furnishings).

The latest solutions and equipment as well as innovative services for ground handling, terminal operations, airport IT and airport design are the main focus of inter airport Europe. This year, this is especially demonstrated through the new concept of the interconnected airport.

The Interconnected Airport as the Future Vision

While a high level of automation and digitalization in some areas of international airports has already been achieved, the role of IT up until now has been a separate function to support certain processes. As a result, the concept of the interconnected airport takes this one step further and is now also influencing hardware, services and other equipment.

"At present, airport operators are facing the challenge to implement a comprehensive overall

IT infrastructure, which is extending the usage of IT across all areas of the airport. Now, the focus is on the interconnection of all processes, for example passenger handling, maintenance operations, cargo management as well as various other terminal and airfield operations," says Nicola Hamann, managing director of the organizers of inter airport Europe, Mack Brooks Exhibitions.

"The integration of IT interfaces with airlines and other service providers within the airport and, beyond that, across various airports, is the next step forward. The interconnected



airport is therefore the future vision of the airport industry, which is opening up various new possibilities in the airport industry. The solutions for this new concept range from apps for passengers as well as airport employees to cloud-based systems for the planning and forecasting of passenger flows."

On one hand, the main advantages of digitalization and automation of all airport-related processes lead to optimized operations, increased efficiency and security as well as an improvement of passenger experience.

On the other hand, data security is gaining importance due to an increasing risk of cyber attacks that is caused by a higher level of digitalisation. Therefore, with the increasing degree of digitalization, the demand for security concepts is rising equally.

Airport operators in demand of the latest equipment and innovative services for ground handling, terminal operations, airport IT and airport design can experience the latest trends first hand and are able to source the latest technologies for the development and expansion of their airports.

Information for Visitors

For inter airport Europe visitors, a visitor brochure has recently been published in English and German. The guide contains an exhibitor list, the exhibition profile of inter airport

> Europe, detailed information about entrance fees as well as useful tips for travel and accommodatio. The brochure is available as a printed version and can be requested via the show website www.interairport.com/ europe. In addition, the guide is also available as a direct PDF download on the website.

The online newsletter "inter airport News" provides the latest information about the show and the industry and presents the recent technologies and trends which will be displayed at inter airport Europe. The newsletter can also be requested via the website and is published monthly ahead of the show.

For the first time in the history of inter airport Europe, a Trade Fair Train will be operating on-site, making it easier for visitors to move between the halls and the outdoor area. Also, visitors will be able to experience a new Demonstration Area, where exhibitors of the outdoor area will be displaying equipment. Visitors will have the opportunity to test machines and other large-scale exhibits themselves and see it live and in action.

The opening hours of inter airport Europe 2017 are from Oct. 10-12 from 9 a.m.-5 p.m. and on Oct. 13 from 9 a.m.-3 p.m.

Further information on inter airport Europe 2017 as well as the latest exhibitor list and useful tips for visitors are available on the show website.

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New Strategies and Solutions to Help Meet Ground Handling Challenges

From the inefficiencies associated with multiple ground service providers, suboptimal airport designs and a lack of standardized procedures, to unexpected, costly aircraft ground damage and ineffective resource management, ground handling requires better solutions.

By Uschi Schulte-Sasse

irlines are under considerable pressure to consistently achieve on–time performance, while minimizing operational costs. It is estimated that for a large airline adding just five minutes to aircraft ground time can cost the airline up to \$35 million (USD) annually. A deciding factor in meeting on–time per–

formance goals is the efficiency of the airlines' ground handling operations.

The reality is airlines and ground handlers face major challenges relating to ground handling. From the inefficiencies associated with multiple ground handlers, suboptimal airport designs and a lack of standardized procedures, to unexpected,



costly aircraft ground damage and ineffective resource management, it is clear that ground handling requires better solutions.

Many airlines are attempting to address these challenges by outsourcing their ground handling to third parties. The International Air Transport Association's (IATA) data suggests that more than 50 percent of all ground handling is managed by the more than 1,000 ground handlers worldwide.

Other measures airlines are taking include investing in advanced technologies, and embarking on robust employee training programs.

There is also a heightened awareness that ground handling services cannot be viewed as commodities, but rather essential core services for which value, and not just price, must be emphasized. It's important that all parties understand how pervasive challenges have been driving the ground handling industry's growth, as well as new measures to optimize ground handling processes.

Ground Handling Industry Growth

Given the aforementioned challenges, there has been no shortage of growth for the ground handling industry. For 2016, Visiongain Ltd. valued the airport ground handling services market at \$54 million (USD) with growth rates projected to be strong over the next decade.

Market research conducted by the analysts at Technavio projects a compound annual growth rate of approximately 6 percent by 2020 for the global aircraft ground handling system market.

To further illustrate the magnitude of the ground handling market and its growth trajectory, GM Insights projected the aircraft ground handling system market size to exceed \$160 million (USD) by 2022.

This encompasses aircraft, cargo and passenger handling applications. Suffice it to say, that it is a booming industry despite, or perhaps because of, the many challenges faced.

The Challenges

Let's start with the spiraling downward profit margins for ground handlers. Increasing competition in the sector has been forcing prices down and further commoditizing vital ground handling services.



Currently, leading ground handlers are working with an estimated 5 percent return on their sales. Recognizing this, astute airlines are rejecting the commodity view, and instead opting to work with the handlers to negotiate the best service packages, not just the best price.

After all, the best outsourcing models rely on a "partnership" approach where there is a shared, vested interest to deliver the highest benefit/cost ratio.

Besides the profit margins, there's the apron congestion associated with so many handlers operating in a single airport. This has contributed to increased demand for ground support equipment in tandem with decreased productivity.

Some airports are looking at ways to pool equipment and perhaps related labor resources for multiple handlers in order to reduce the costs associated with both and improve productivity.

Regarding labor, there are the usual factors influencing productivity such as staff knowledge and skills, communication, equipment design, safety and overall employee job satisfaction.

The absence of a fixed model for ground handling, coupled with regulations that vary across nations, compounds the challenges associated with staff performance. Staff performance problems are most often revealed in incidents related to unexpected disruptions such as aircraft ground damage, accidents, equipment failures, etc.

Given the range of challenges airlines face

relating to ground handling, multi-faceted approaches are needed, including better safety audits, training and new technologies.

The Solutions

Recognition that a global standard for ground handling policies and procedures would be beneficial, IATA started tackling the issue as early as 2008 when it first introduced its IATA Safety Audit for Ground Operations (ISAGO) model.

More recently, the organization announced a new model encompassing a new schedule for ISAGO audits to begin in January 2018 but with the same goals of improved ground safety, auditor training/qualification and audit efficiency, as well as the elimination of duplicate audits by air operators.

In additional to the audits, there is heightened focus on safety in ground handling, a central theme in the National Air Transportation Association's (NATA) Ground Handling Safety Symposium.

IATA estimates that the aviation industry would save \$4 billion (USD) annually by improving safety and reducing damage to aircraft and ground vehicles. If you consider that there are more than 200 steps required to prepare an aircraft on the ground for its next take-off, it's not too hard to understand that accidents and damage to aircraft and ground equipment could easily occur in the absence of the right safety management system (SMS).

SMS aspects of ground handling systems are designed to reduce ground handling



incidents, promote safe and correct use of ground handling vehicles, establish a safety culture among staff and ensure compliance to safety regulations. They identify risks and establish processes to mitigate them.

As a result, modern GSE management consists of mechanisms like geo-fencing and license and training management to ensure that only qualified staff is able to, for example, start certain vehicles.

Powerful benchmarking and reporting measures foster a culture of continuous improvement for all parties involved in ground handling from the aircraft operators and ground handlers to fuelers, baggage handlers and caterers.

Software solutions designed specifically to improve ground handling operations are another weapon in the airlines' toolbox. There are a host of sophisticated software solutions targeting all facets of ground

Simple Complexity



handling processes with the intent to drive greater efficiencies and positively impact costs through improved performance and optimized resource planning.

With the emphasis on seamless, realtime exchange of information, workforce management solutions provide:

- Effective staff task allocations and overall workforce management.
- Monitoring and reporting of turnaround status.
- Efficient management of unexpected contingencies/disruptions.

Key to these solutions is the emphasis on a balance between meeting demands on the ground, without compromising workforce morale and motivation. The last thing airlines and ground handlers want is to drive optimization at the cost of employees' best interests.

Incorporating features for tactical and operational planning, flexible workforce deployment, intuitive user interfaces and relevant reporting, these advanced solutions strike the right balance between scheduling demands, resource optimization, productivity and employee motivation.

The last thing
airlines and ground
handlers want is to
drive optimization
at the cost of the
employees' best
interests.

When it comes to turnaround management, today's solutions strive to reduce turnaround delays and related financial repercussions, while also improving passenger service quality.

The emphasis is on fully-transparent, real-time data exchanges whereby information relating to all major clearance activities, passenger connections, baggage transfer, loading operations and other turnaround related activities can be monitored instantly.

The solutions' effect is real-time reporting of potential bottlenecks detected based on the continuous monitoring of flight and handling details. When a bottleneck or other problem is identified, it is reported in real-time

through mobile devices and for interception and management before it can trigger a delay. The process at the center of the possible delay is detected and reported in conjunction with recommended actions so that preemptive





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measures can be chosen.

Integrated cost-based decision support, not only at the local airport, but network-wide, is also provided by the solution and weighs such factors as inflight fuel consumption, rebooking and delay costs.

Line maintenance tasks executed during typical turnaround periods are fully supported by today's advanced line maintenance software solutions which are seamlessly integrated into an airline's existing MRO system. These solutions deliver decision-making support, from planning and rostering to operations. They provide automatic

determination of tasks with assignments delivered to employees via their mobile

Using the solutions, employees all have the information at their fingertips while task statuses are readily available. Performance monitoring of all pertinent processes are recorded to facilitate evaluations, quality control and billing. The most sophisticated of these solutions also keep track of all open minimum equipment list (MEL) repair orders and automatically assigns them to available employees for efficient handling and lower operating costs by keeping the MEL list as short as possible.

Ramp services also are benefitting from leading-edge, optimization solutions. They are supporting dispatchers with real-time, continuously updated information regarding resources and staff workloads.

Just as with maintenance processes, the software automatically determines tasks and staff assignments applying rule-based task specifications and the required skill-set. Web-based communication facilitates realtime transmission of job-related activities to employees via their tablets and smartphones.



These features, coupled with performance monitoring, provide airlines with enhanced resource utilization, planning, communication, service quality and compliance, plus the ability to bill for additional tasks that have been provided.

Where ground support equipment (GSE) management is concerned, optimization solutions provide intelligence far beyond the location and status of equipment.

Instead, these robust solutions offer detailed information that promotes the more efficient control and management of GSE. Real-time fleet monitoring encompassing GSE position, operational status and condition is provided, as well as a well-designed airport map reflecting conveying data visualization within a geographical context.

Other key features of an advanced GSE management solution are:

- Automatic maintenance prediction based on operating hours.
- Detection and troubleshooting of any GSE problems.
- Automatic creation of a fuel task and its progress, and the optimal time window for such tasks.

Focus on Best Practices

Ground handling processes will continue to challenge the airlines and ground handlers, however, there have been significant strides made in measures to help ease their burden.

The implementation of a holistic view on the turnaround processes and emphasis on best practices are making a difference. These measures applied in concert with the application of advanced optimization solutions are helping the airlines and their ground handling partners improve performance levels, optimize resources and manage their operating costs.

There's no denying the impact ground handling operations have on the passengers' ultimate experience. All of those preparation processes from an aircraft's time of arrival to its next departure and their associated time and cost factors weigh heavily on an airline's ability to compete. Being proactive in terms of ground handling strategies and deploying holistic solutions that afford a better competitive edge is essential for an airline's future. **GSW**



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Believing that a more efficient and effective ISAGO program will result in better benefits all around, IATA has introduced a number of improvements to the audit procedure.

ver since the IATA
Safety Audit for
Ground Operations
(ISAGO) program
was launched in
2008, the number of
audits performed

– as well as the number of sta-

as well as the number of stations in the ISAGO registry – has grown steadily.

By Mario Pierobon



As of Dec. 31, 2016 the number of registered Ground Service Providers (GSPs) in the ISAGO Registry surpassed 200, with almost 430 registered stations in more than 270 airports worldwide. ISAGO auditors have performed more than 1,300 audits since the program's inception.

However, the number of ISAGO pool members, who provide the auditors, has not increased at the same rate to meet the demand for audits, according to an information paper on the new ISAGO operational model published by IATA.

"It is generally accepted that the existing model has not been as successful as the industry would have liked. Whilst there has been growth in demand for ISAGO registration/accreditation since inception, this



has not been as widespread or as rapid as expected," says Jon Conway, Director General of the Airport Services Association (ASA). "There are several reasons, including a lack of commensurate growth in audit pool membership and a lack of recognition, from many regulatory authorities, of ISAGO as an acceptable alternative to an individual airline's ground operations oversight requirements. There were also some issues with consistency and quality."

A New Audit Model

IATA has therefore initiated a project to undertake a complete review of ISAGO since, after seven years of operation, the industry recognized that the audit program could be improved in such a way that all stakeholders received benefits.

A new operational audit model was devised by IATA to introduce improvements in the management of the ISAGO audit program, which will continue to be performed by IATA but with a much larger remit, the information paper notes.

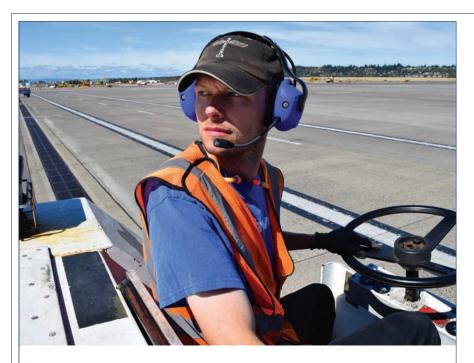
"The main changes include a move away from the airline populated pool system," notes ASA's Conway. "IATA will establish a 'Charter of Professional Auditors' (CoPA). Auditors from this group, trained by IATA, will conduct audits under a lead auditor. In addition, the management of the program will be via an ISAGO Agent. They will be contracted to IATA to administer the program.

"It is proposed the costs associated with the new model will be passed on fully to the ground service providers and there will be a greater focus on GSPs' management system, especially the safety management system (SMS)."

A New Role for ISAGO Agents

Under the new ISAGO model, "IATA will have greater involvement and oversight of the recruitment, training and qualification of the auditors to be used for ISAGO audits. This would be achieved by establishing the 'IATA Charter of Professional Auditors', membership of which is necessary to participate in an ISAGO audit. Application for membership of the CoPA will be open to any person that has the prerequisite skillset," the information paper highlights.

"Once accepted by IATA, the candidate auditor will undergo three stages of training and assessment, including newly-developed computer-based training of ground operations management and discipline-specific operations, program–focused training and onsite audit evaluation. Additional training will be provided for qualification as a Lead Auditor. Recurrent training, to keep abreast of developments will also be pro-



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vided on an annual basis. Criteria are specified for auditors' currency and performance measurement."

The new plan foresees audits to be performed no longer through the airline audit pool of ISAGO, but rather through ISAGO agents.

"IATA will allocate audits on an annual basis to ISAGO Agents (GOAs). GOAs will be contracted by IATA to administer all aspects of the audits on its behalf. The GOA will be responsible for organizing the audit schedule and plan for the allocated audits, the establishment of the audit teams (including the assignment of the Lead Auditors), liaising with the GSP and ensuring delivery of the final audit report to IATA. The GOAs would be required to select their auditors only from the CoPA, ensuring that auditor resource usage is maximized," the information paper says.



"The Lead Auditor will play a more prominent role in managing both onsite and offsite activities, including audit activity planning, assisting the GSP in the closing of findings, closure of the audit and production of a quality-controlled audit report. IATA will implement an oversight program to

monitor and check the quality of the audits and the performance of the auditors, particularly the Lead Auditor.

"IATA will implement a scheme of charges to apportion fees on a program cost-recovery basis. Audit fees, payable by the GSP, would be based on auditor profes-



sional fees (man-day rates) as determined by the audit type and scope (disciplines covered), and administration charges (GOA/IATA). Airlines would contribute to the program maintenance and development by annual subscription for access to audit reports or individual purchases."

A Widened Scope

"IATA will expand the scope of the ISAGO audits to cover additional ground operations, e.g., catering operations in the vicinity of the aircraft, and safety–related activities. IATA will continue to develop the ISAGO reference documentation, the ISAGO Standards Manual (GOSM), Aircraft Handling Manual (AHM), IATA Ground Operations Manual (IGOM) and other publications," the information paper explains.

"The aim is to cover as many ground operations as practicable, and to establish

global harmonization and standardization of the standards and procedures. The development or revision of operational procedures, such as in the IGOM, will in some cases incorporate an objective-based approach that would allow the implementation of an acceptable means of compliance."

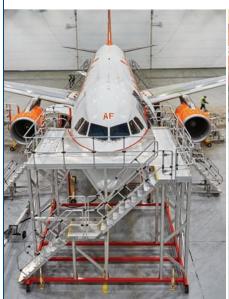
Safety Management Systems

The new operational audit model of ISAGO raises the importance of management systems, including SMS, within a GSP's organization.

"The ISAGO Registration is focused on the Headquarter Audit and the level of conformity with the management and organization (ORM) GOSARPs, and the ability of the organization to manage the ground operations at its stations. The Station Audit becomes a verification of the implementa-

The aim is to cover as many ground operations as practicable, and to establish global harmonization and standardization of the standards and procedures.

tion of processes and procedures, including the adoption of local or customer–oriented requirements, which are managed or over– seen at the corporate level," the information







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paper explains.

"In March 2016 IATA established a strategy for a gradual implementation of Safety Management System (SMS) requirements for ISAGO registered Providers, to elevate all the ISAGO SMS provisions currently in Edition 5 of the GOSM from Recom-

mended Practices to Standards by 2019. The SMS strategy is primarily intended to allow Providers to establish implementation plans (and to budget for resources accordingly) to raise their level of safety investment and commitment to equal that required of their customer airlines."

A Look Ahead

The transition to the new model has been underway for approximately two years, and the new model will be fully operational in early 2018 when the first batch of audits will be performed in accordance with the new model.





The aircraft ground handling industry has been supportive of ISAGO since its inception, and it also supports the new operational model.

"The GSP community has always been supportive of a standardized audit program/methodology, and we remain so. There is a level of disappointment in that ISAGO – and indeed IGOM – has not been as successful as envisaged and there remains concern that the number of 'redundant' airline audits will not decrease. We (ASA) are keen to work with IATA and others, to convince the regulators that ISAGO is a high quality program and should replace the need for redundant ground operations compliance audits," says Conway.

"The uptake of ISAGO has been reasonable if not spectacular," he continues. "IATA has set up a working group (including airlines and GSPs) to help advance the ISAGO – and IGOM – cause, and ASA is part of this group. The benefits of an industry standard audit program would seem to be self–evident, so the next couple of years, with the new model in place, will determine ISAGO' success.

"It was interesting and a little unfortunate to hear a major U.S. carrier recently and openly stating they would not select an ISAGO accredited GSP over a non ISGAO GSP at a station they were tendering for ground handling. Clearly there are commercial and other implications to any tender, but we are told an ISAGO registration should provide the holder with a competitive advantage. The evidence on this is less compelling."

IATA believes that, overall, a more efficient and effective ISAGO will result in better benefits all around.

"The realization of the benefits will be greatly enhanced by all stakeholders playing their part. IATA will therefore actively pursue its member airlines to commit to the program by including ISAGO as a contractual requirement for their ground operations," the information paper explains. "IATA will also pursue Airport Authorities to benefit from the ISAGO program, ensuring duplicate effort is eliminated, and IATA will seek appropriate regulatory recognition of ISAGO by States and other regulatory organizations." **GSW**



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The GSE pooling program implemented at LLA has reduced crowding on the ramp, improving safety and helping make turnarounds more efficient for ground handlers.

By Josh Smith

nyone who has ever been caught in rushhour traffic, can appreciate the frustration and challenges that come with congestion. At London Luton Airport (LLA), congestion on the ramp was causing similar issues.

An abundance of ground support equipment

(GSE) was crowding stands and making the turnaround process for ground handlers difficult. As a result, a number of parties came together to find an answer to the problem.

A GSE pooling program was instigated by Luton's head of airside, Liam Bolger. Airport offi-



cials say airside congestion was no secret, and ramp agents were in need of a solution. So LLA met with the two ground handling firms operating at LLA, Swissport and Menzies, to discuss the pooling idea further.

"They along with the airport authority and TCR set up a trial before the airport conducted a formal tender process for the provision and management of shared GSE," explains Bolger.

"Everyone saw the sense in reducing the amount of GSE, but no one really knew how it would work," he admits. "All-in-

all, everyone was more enthusiastic than skeptical, otherwise, we would never have achieved as much as we did in such a short period of time."

From May 2015 to August of that year, LLA ran a trial of the program on five of the busiest aircraft stands using older equipment.

"After summer was over, we regrouped and started putting together the tender document, which was submitted late December 2015," Bolger says. "The contract was awarded to TCR and we initially had an

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implementation date of April 2016."

However, he explains parties involved underestimated the amount of legal work on the contractual side, so they didn't achieve sign-off until December 2016.

"The first of the equipment was rolled out late January 2017," Bolger continues. "The rollout isn't complete - all the equipment is new, so we have been held back with manufacturing slot availability."

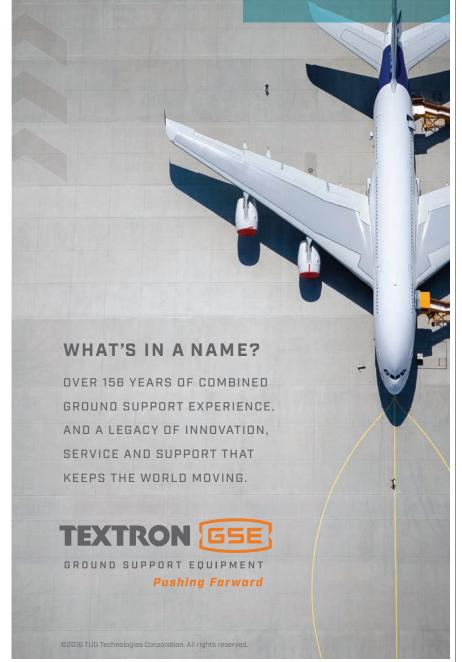
Under the terms of the license, Swissport and Menzies - as well any future ground handlers - are obligated to use the pooled equipment at Luton. However, there are some costs associated with the program, according to officials at Swissport.

"We understand the merits of the solution from an operational perspective in an airport with infrastructure limitations," company officials say. "However, the complexity and cost of GSE pooling at Luton, which only covers certain equipment, is a more expensive solution, which is ultimately paid for by the carriers and the traveling public."

Phase 1 of pooling covers aircraft steps, GPUs, baggage belts and ancillaries such as Passenger Integrated Guidance Systems (PIGS), chocks, cones, telematics, insurance covering the first £500 of damage per event and fuel, which is recalculated at agreed intervals, as well as GSE maintenance.

Costs associated with GSE, such as fuel and maintenance are figured on a price per turn. Bolger says everyone pays the same, creating "a level playing field."

"Phase 2 is to look at the feasibility of sharing pushback tugs, tow-bars, EBTs and



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baggage dollies," Bolger adds.

As a result of the program, the 600 assets on the ramp have been greatly reduced, with Bolger noting the intention is to bring that number to less than 300.

These assets are tracked with telematics to ensure the equipment remains within its designated stand or zone. The telematics platform also records the last user in the event of damage, poor parking, etc. What's more, the technology can highlight unserviceable equipment and report on fuel levels.

Bolger explains, the telematics solution can restrict access to only those staff trained to use the equipment itself, which is achieved via an employee's airport ID card.

"It is also intended to use telematics to track and analyze data on the turnaround itself for the purpose of understanding and improving the process," Bolger says.

According to Bolger, all parties involved have realized various benefits since the pooling program was implemented.

The biggest benefit is significantly less congestion on the ramp, which in turn has improved safety while modern, more efficient equipment has provided environmental benefits.

"The airlines benefit from improved safety on the stand, and the fact they don't have to wait for equipment to be towed from other areas around the airfield," Bolger says. "The passenger also benefits through the improved efficiency of the turnaround and not having to negotiate

▼ LLA's head of airside Liam Bolger, LLA's operations director Neil Thompson and Kristof Philips, general manager TCR UK Ltd. Photo courtesy of LLA



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other equipment at the head of stand when boarding/disembarking."

For ground handlers at LLA, Bolger says agents have previously invested a lot of time and resources into managing GSE - time and resources that can now be better invested in delivering their product.

"Having equipment available on stand eliminates the need to move assets between

stations for summer uplift and winter down turn, etc., and reduces damage to the equipment itself as it is not being towed around the airfield," Bolger says, noting 95 percent less damage on pooled stands.

"Other benefits are the reduction in assets used to tow equipment," he adds. "But the most significant benefit is the mitigation of risk when tendering the airline contracts,

and most particularly, when a contract is lost, the handler is not left with the cost of having to procure more equipment to meet new contracts or the losses incurred in having assets depreciating if a contract is loss."

Bolger says he has not seen any particular drawbacks with the pooling program. He notes there have been concerns that access to the ground handling market will be less



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restrictive because of pooling.

"However, despite its image, ground handling requires a good degree of knowledge, skill and professionalism. Therefore, ease of accessibility, I believe, is grossly overestimated," he explains.

After implementing the pooling program, Bolger says other airports and airlines across the globe have shown an interest in

the concept. Indications are that London Gatwick could be the next location to mandate pooling with a number of other airports in the United Kingdom preparing to follow suit as well.

While the program has had a promising beginning, Bolger says there are still opportunities to evolve and improve the pooling system.

"The guiding principle of pooling is to create greater efficiencies," he says. "There are significant opportunities to improve the process, employing the latest developments in GSE technology and in extending the principle beyond GSE and into certain defined processes." GSW





Russia's Plan to Improve Handling

Measures aimed at de-monopolizing the country's ground handling industry have been designed to enhance the quality of services.

By Eugene Gerden

he Russian government is considering introducing a package of measures, aimed at de-monopolizing its domestic ground handling industry and improving the quality of provided services by local operators.

Implementation of these plans will be carried out within the existing Rules for Access to Services of Natural Monopolies at Russian Airports, which were approved by the Russian government as far back as 2009 and which created conditions for the

stimulation of competition in the domestic industry of ground handling.

According to Anatoly Golomolzin, deputy head of the Russian Federal Anti–Monopoly Service (FAS), since that time, a package of amendments to the new rules has been taken.

The rules have set, on a mandatory basis, the presence of no less than two ground handling operators at domestic airports with passenger traffic of at least 1 million passengers per year, and at least three organizations at airports with a passenger traffic of more than 5 million passengers per year. Still, implementation of the rules in practice is often associated with serious difficulties.

According to Golomolzin, the adoption of these rules resulted in a significant improvement in the situation and tightening of competition in this market.

At the same time, despite the optimism of the FAS, the majority of industry analysts believe that the current situation in the industry remains complex.

A Lack of Independent Companies

Despite all the efforts, which have been taken by the Russian government, the country's ground handling industry remains highly monopolized. This is reflected by the lack of independent companies specializing



on the provision of services in the field of ground handling in the country.

As in the past, currently such services are still provided by the companies affiliated with airports, which can result in high prices and low quality.

Currently almost half of the costs of airlines, paid by airlines in airports, account for ground handling services as well as fuel. Despite certain state initiatives, which have been implemented in recent years, the Russian aviation market is still reluctant



to move towards de-monopolization of the segment of ground handling.

At the same time, the situation is even more complex in the case of regional airports. According to analysts of the Russian Ministry of Transport, ground handling services in the majority of Russian provincial airports remain in a state of monopoly.

In order to improve the current situation, the Russian government is considering creating conditions for the increase in the number of handling and refueling companies operating at domestic airports.

According to state plans, this should additionally attract at least three to four ground service providers and three fueling companies in each Russian airport and significantly reduce prices for their services.

Today the cost of ground handling services in the majority of Russian airports is estimated at \$7-10 (USD) per passenger. At

the same time prices for aviation fuel are usually higher than in the majority of the EU airports and in North America.

According to plans of the Russian Ministry of Transport, the attraction of one or two additional service providers to local airports should help to reduce prices for ground handling services to \$5-6 per passenger. This, in turn, could help to attract new airlines to airports and increase revenue of ground handling operators.

Sharing Costs

In order to attract new airlines, some airports, to date, have even decided to bear part of carriers' costs for ground handling. The government also plans to create conditions for the liberalization of the fuel market to help airlines further reduce their costs during the launch of new destinations.

Implementation of these plans will be per-

sonally controlled by Maxim Sokolov, Russia's Minister of Transport as well as the FAS.

"Today, small and even bigger Russian airports are actually in a closed circle. Airlines do not open new destinations due to high prices for ground handling and small passenger traffic, while service providers do not come to airports, due to a limited number of airlines, based in it," says Sokolov. "In order to solve this problem, a tripartite agreement between the airport, the airline and the handling provider should be signed during the launch of a new route. This will make it possible to reduce the cost of launching of a new route for the airline, to provide regular utilization to a ground handling provider, while in the case of airports, to help them to increase their passenger flows."

Equipment Updates

Last year the majority of Russian airports were able to successfully complete the procedure of technical re-equipment, which was initiated by the Russian government and resulted in equipping their ground support equipment (GSE) with ignition interlock devices - a mechanism that prevents the engine from being started in the case of blood alcohol concentration of the driver, as well as global positioning system (GPS) and global navigation satellite system (GLONASS) technology.

In the case of GPS and GLONASS, the new systems were installed in all vehicles in national airports, including cars of technical services and buses, as well as snow-removal machines and fire engines.

In addition, the majority of Russian airports have completed installation of roadway scanning systems, which allow dispatchers to control all the movements on or near the landing field in poor visability conditions. Finally, most of Russian airports received additional multilateration systems and a new generation of radio detectors.

Government Efforts

Russia's government also has established a single center of control for ground handling resources in each of the country's airports. According to analysts of the Russian Ministry of Transport, implementation of the latest measure is very important, as the current lack of such a service sometimes results in the inability of dispatchers to



make decisions regarding with the priority of flights' service.

In addition to technical modernization, the Russian government has significantly toughened requirements for the training of personnel of local ground handling companies and made the profession more prestigious through the rise of salaries to the industry's workers and the introduction of minimum wages for them.

This year the Russian Ministry of Transport plans to complete the introduction of a new modern system of information management in all Russian airports and computerize all the operations of ground handling.

According to Alexei Rayevsky, deputy director of commerce of Moscow-based Domodedovo Airport - Russia's second

Russia's government also has established a **single center of control** for ground handling resources in each of the country's airports.

largest airport, in recent years the quality of ground handling services provided at domestic airports has significantly increased. This is also due to successful implementation of state initiatives last year and the increase of competition in the market. However, the problem still exist.

In the case of Domodedovo, the airport plans to introduce the European scheme of the provision of ground handling services. That will involve establishing equal conditions of the access to ground handling services to all airlines operating in the airport to further stimulate competition in this field.

According to Raevsky, Domodedovo and other Russian airports plans to use the experience of the European airports in the field of de–monopolization of ground handling services. According to him, for the last five years, prices for ground handling services at the EU airports have declined by

more than 12 percent.

At the same time the number of third-party operators in the apron segment almost doubled, while in baggage handling segment these figures have grown by more than 50 percent. Raevsky said that the achievement of these results are mainly due to successful reforms that were conducted by the European aviation regulators in the ground handling field.

At the same time, according to Sokolov, numerous studies conducted by analysts of the Russian Ministry of Transport have shown that the provision of ground handling services by the airport itself, and the companies affiliated with it, leads to unreasonably high prices for these services, which results in the growth of ticket prices, due to the need of airlines to compensate these costs.

However, according to Sokolov, the introduction of more strict control in the Russian market of ground handling services and its further de-monopolization should help to solve these problems by as early as next year, and in particular prior to World Cup 2018, that will be organized in Russia. **GSW**



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Officials at Kuala Lumpur International Airport have created a growing aircargo and logistics facility, where all four of the world's leading integrators and 20 of the world's major 25 freight forwarders have established a base.

By Manik Mehta



▲ Badlisham Ghazali is the managing director of Malaysia Airports Holding Bhd., which runs and manages airports in the country.

Photo courtesy of KLIA

uala Lumpur International Airport (KLIA), Malaysia's leading international airport, has long aspired to become what airport officials describe as the "preferred logistics gateway to Asia."

This hope is pinned on the KLIA Aeropolis, an airport city developed over large swathes of land, whose impact touches the city beyond the airport's radius. The project has three main development clusters - air cargo and logistics; aerospace and aviation; and meetings, conventions and leisure.

Malaysia Airports (Sepang) Sdn. Bhd. which manages, operates and maintains KLIA, including the Low-Cost Carrier Terminal (LCCT-KLIA) in Sepang, is a wholly-owned subsidiary of Malaysia Airports Holdings Berhad (MAHB).

MAHB has created a growing air-cargo and logistics facility at the KLIA where all four of the world's leading integrators and 20 of the world's major 25 freight forwarders have established a base.

Stakeholders in Malaysia's aviation sector believe that KLIA Aeropolis, with its infrastructure for cargo and logistics, will catapult the airport to the top position in the region - known as the Association of Southeast Asian Nations (ASEAN). KLIA Aeropolis benefits from its central location and is part of the larger sphere of economic integration

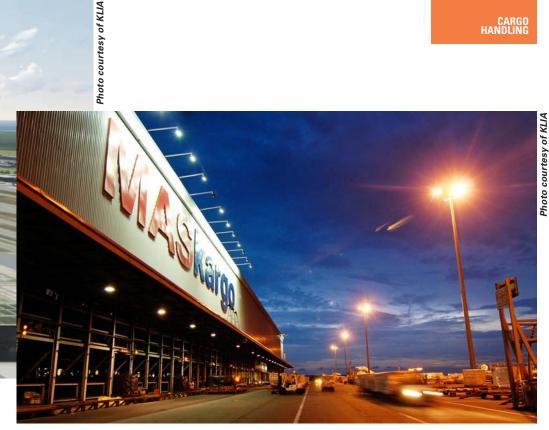
which includes Putrajaya (the nation's administrative capital) and Cyberjaya (the ICT city) with its modern infrastructure linked to the capital city Kuala Lumpur.

Badlisham Ghazali, MAHB's managing director, highlights the fact that KLIA's three runways offer sufficient capacity, even as other airports face capacity pressures. At present, KLIA has three parallel runways - one for the KLIA's main terminal, one for KLIA-2 and a third one that can be used for both the terminals.

"We have 72 aircraft movements an hour," says Badlisham. "Forty percent of the new aircraft will be delivered in Asia. We are connected to Southeast Asia, the Asian continent and the Middle East. While KLIA-1 had 25 million passengers, the KLIA-2, used by low-cost carriers, had 27 million passengers a year. KLIA-1 has a capacity of 40 million while KLIA-2 has 42 million capacity."

However, the airport's strategic planners have recognized the fact that most Asian airports are bursting at the seams, thanks to vibrant traffic growth. Consequently, more terminals will be needed in the future.

Cargo is handled by MABKargo and POS Aviation (Malaysia). Cargo volume handled at KLIA is 750,000 tons annually against a capacity of 1.1 mil-



lion tons. MABKargo looks after cargo handling. The bulk of the cargo (70-75 percent) is transported in bellyhold while freighters account for 25 percent of the cargo traffic.

"All the integrators are present here. We are also very keen to push e-commerce and are keen to get e-commerce players to Malaysia," Badlisham says.

"E-commerce will be a key driver in Intra-Asian trade which is growing annually by 6 percent," he emphasizes.

On the passenger side, KLIA grew 7.6

percent in 2016 compared to 2015 which is higher than Bangkok, Singapore, etc., according to Badlisham. A total of 52 million passengers were clocked at KLIA in 2016, compared to 49 million passengers in 2015.

"Our growth comes, mainly, from Asia. We have carriers from China. Europe is important but there are other ways of connectivity. The Cathay Dragon flies to KLIA. The KLIA's target is to achieve 100 million passengers by 2030. KLIA has the capacity and the future trend, as we believe it, will be characterized by airlines increasingly flying narrow-bodied aircraft into KLIA," Badlisham explains.

KLIA Aeropolis is expected to benefit from a robust multi-modal connectivity, and is therefore well positioned as a gateway to Southeast Asia through its air connectivity of 1,250 weekly flights within Southeast Asia, supported by a dense rail and highway connectivity linking the entire Peninsula Malaysia as well as Singapore to the south and Thailand to the north, besides being



linked to the seaport just 45 minutes away.

Experts say that KLIA Aeropolis' infrastructure and advanced operational systems should provide a strong boost to KLIA Aeropolis' position as a focal point of aviation-related businesses interested in providing goods and services to their international customers.

MAHS sources speak of "adequate capacity" available for a fourth runway in the future.

The air-cargo and logistics hub within

the KLIA Aeropolis is being geared to tap the e-commerce market of Southeast Asia, which, according to airport sources, is expected to grow to \$88 billion (USD) by 2025, surpassing other segments such as offline retail.

The response from the corporate sector has also been encouraging, according to airport sources. Alibaba Group is reportedly using the KLIA Aeropolis as its Southeast Asian e-commerce hub within the next two years.





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Conversion of LCCT into **Cargo Terminal**

The relocation of the low-cost carriers' operations from the KLIA-1 airport to the KLIA-2 in May 2014 led to the conversion of the former low-cost carrier terminal into a cargo terminal; the air-cargo handling facility, completed in November 2016, has been christened KLIA Air Cargo Terminal 1 (KACT1). There are plans to expand the Free Commercial Zone (FCZ) to include the KACT1.

The focus will be on three business segments such as Express, e-commerce and Coolport which, the operators say, can bolster the cargo-handling capacity at the KLIA by approximately 300,000 tons.

Two-thirds of the terminal space are allocated to POS Aviation which is collaborating with Lazada Group - 83 percent of this group is owned by the Alibaba Group, - to set up an e-commerce distribution center, which is expected to provide value-added services such as air-sea-land transportation solutions, international transshipment, postal and courier services, and warehousing facilities.

The contours of the KLIA as the "preferred ASEAN hub" acquired concrete shape when MAHB held talks with All Nippon Airways (ANA), Garuda of Indonesia and the International Air Transport Association (IATA) in Singapore in February this year.

The low-cost carrier terminal KLIA2, located two kilometers away from the Main Terminal Building (MTB), is built to cater for the explosive growth in low cost travel in the region. KLIA2 started operations in May 2014. The KLIA2 was built at a cost of around RM 4 billion (\$1.3 billion USD), and is touted as the world's largest low-cost carrier terminal, handling some 45 million passengers a year with the capability to expand future capacity.

MAHB recorded a 6 percent growth in passenger traffic at its airports in the country last year to 88.83 million passengers, with KLIA surpassing the 50-million mark for the first time. Domestic traffic rose by 4.1 percent to 45.59 million passengers.

The main terminal at KLIA saw passenger growth of 23.3 percent while KLIA2 grew 7.2 percent, pushing the passenger volume at both airports to 28 million during the first



handle up to \$65 billion (RM279.4 billion) of goods alone in the ASEAN region," says Liow.

"It will facilitate cross-border movement of goods as well as ensure seamless air connectivity," he continues, adding that the DFTZ will be a catalyst for the growth of Malaysia's e-commerce.

The country's "e-commerce vision", as some call it, is expected to help sustain strong growth in the future.

Badlisham is bullish about e-commerce which, he believes, could enable the airport to achieve strong growth.

"Intra-Asia trade is growing annually by 6 percent. e-commerce is expected to touch the value of some \$88 billion by 2025 in Asia. Indeed, e-commerce players are global in nature," he says.

The MAHB managing director, who discerns large and narrow-bodied aircraft increasingly deployed in traffic, says that Asia has been a prime source of growth for many airports, airlines and other segments of the aviation. KLIA is positioning itself to tap the growth potential inherent in Asia's geography, Badlisham maintains. GSW

half of 2017.

MABkargo, the cargo division of the national carrier Malaysia Airlines, recently launched five-times-a-week Airbus A330–200F express freighter services from its KLIA hub to domestic destinations such as Kota Kinabalu and Kuching, driven by rising e-commerce and courier demand between East and West Malaysia.

"As the Asian cross-border e-commerce is booming, MABkargo is poised to tap into this market given the world-class warehouse facilities we operate and our vast belly and freighter network," says Ahmad Luqman Mohd Azmi, MABkargo chief executive.

He describes the launch of the new service as "timely", given the carrier's intention to position KLIA as an e-commerce hub in the region.

MABkargo is pinning hopes on what it says is the world's first Digital Free Trade Zone (DFTZ), being developed in Kuala Lumpur. During its launch in March, Malaysian Prime Minister Najib tun Raza observed that Malaysia had embraced the internet economy and e-commerce "in a big way. We are now leading the e-commerce market in the region generating revenue of \$2.3B in 2015."

Indeed, Transport Minister Liow Hong Lai, speaking at the recent opening ceremony of the Renesas Electronics Kuala Lumpur Distribution Centre at the Malaysia Airlines' KLIA freight forwarders complex, observed that the DFTZ at the KLIA Aeropolis will enable online retailers to speed up export and import as well as manage the supply chain at a central location.

"When the DFTZ is fully developed by 2020, this e-fulfillment hub is anticipated to



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Manik Mehta is a New York-based journalist, who specializes in all the aspects of aviation and logistics, including airlines, aircraft leasing, airports, infrastructure, cargo and ground-handling, as well as global markets, trade and business.



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Why **Airline Capacity** to Cuba is Falling Off

After one year of service from the U.S. to Cuba, what challenges are facing these routes?

By John Grant

ess than a year after President Barack Obama restored commercial air travel between the U.S. and Cuba, airlines are cutting back on what looked to be promising routes. Some have speculated that airlines may have jumped the gun in the capacity they planned to deliver to the market, as we have very rarely seen a market grow as quickly as this. Others believe that some reduction was inevitable in such a new and explosive market. Let's look at the story the data tells.

Before the announcement was made in December of 2014 that Obama was working to improve relations with Cuba, only 24,268 bookings were made between the U.S. and Cuba on scheduled air services that year. Considering there were no direct routes, more than 75 percent of passengers started or ended their journeys at Miami International Airport, but were routed through the Bahamas or the Cayman Islands to reach Cuba.

While interest in travel to Cuba remains high among many Americans, the once hopeful outlook of restored relations - and air travel - between the countries isn't looking as bright.



Source: OAG Schedules Analyser

The Demand That Stopped Demanding

Though regular passenger service between the U.S. and Cuba formally reopened in November 2016, there was alternate air service available prior to the announcement. Before December, passengers relied on established charter operations, like PublicServiceCharters.com, and an American Airlines route to Holguín to get to Cuba. The table below shows the rise in available seat capacity from November to December of last year, as many airlines waited for the holiday season to introduce the new routes. In December 2016, budget and mainline carriers alike jumped on the available daily routes between the U.S. and Cuba, as Southwest, Delta, Spirit, Frontier and JetBlue all either added or expanded service to Cuba within a month. Almost overnight, air travel capacity went from 60,390 one-way seats to 160,648.

From August to December of last year, airlines offering scheduled service to Cuba jumped from five to 10, with routes suddenly available across 22 city pairs compared to the five city pairs available just three months earlier. This scale of growth has rarely been experienced elsewhere, and while some may say it speaks to the high level of demand for the market, there are already signs that the demand won't hold.

Making a Route Successful

Since the market opened, airlines have expectedly cut back on scheduled capacity, now averaging about 135,000 one—way seats per month, down roughly 20 percent from the peak in January. Even with the decrease, seat capacity is consistently remaining four times what it was from the September 2016 level when American Airlines launched its first scheduled services to Cuba.

Looking at the data is easy, but when a market has been closed for more than 50 years, preemptively judging the possible demand for a destination is no simple task. In some cases, an educated guess might be the best bet. When airlines are looking to add a new route, factors they might consider include:

- Capital cities: When airlines are looking to expand their networks, many first look to capital cities as connectivity is usually a given.
- Major ethnic flows: Airlines take into consideration popular destinations from a certain country. For example, an airline might add more scheduled services between two city pairs where the demand is high and offer less frequent services from a different departure city but same arrival city. In the case of U.S.-Cuba direct air service, relaxed travel restrictions and visa entry policies can also be a major factor.
- Leisure markets: Airlines will also look to add service to potential leisure markets based on similar, established markets. The availability of varying accommodation levels is

also quite important for those markets with a high proportion of inbound leisurely-type travelers and rates to meet the degrees of hospitality. Airlines will factor in econometric data, such as the levels of GDP, and more

- importantly, disposable income, to be used as travel market foresight.
- Network size: Mainline and budget airlines both add services to build their networks, sometimes testing the water before taking



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the plunge. Historic stimulation rates also play an important role as airlines will look at how other new markets that have been opened have responded to the opening of direct services rather than indirect routings.

• Sector length: As crazy as it may seem, airlines consider the sector length versus market opportunity when looking to expand. A Florida-Cuba sector would probably be no more than an hour and 15 minutes; a sector to the Southern Caribbean would be two and a half hours, so an airline would perhaps prefer to run two roundtrips than one longer sector.

With the rise of the low-cost carriers, travelers are more willing to travel to destinations they might not have previously considered - for the right price, of course. Thus, when airlines, especially budget operators, add new flights, it generates interest and curiosity among travelers. This is a strategy many airlines use to create demand for underserved markets and provide an outlet for additional routes to airlines who are looking to expand and add more services.

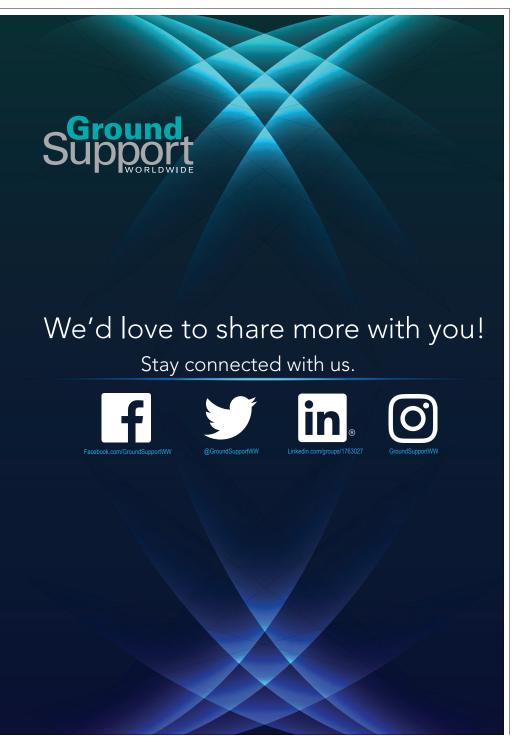
What's Working, and What's Got to Go

Even as recent as a few months ago, while some airlines were looking to pull out on some of their routes to Cuba, others were prepared on the sidelines, waiting to snatch them up. Most recently, it seems like many of the airlines offering regular services to Cuba are looking to opt out on at least a few routes, if not all together, including Southwest, American, Jet-Blue and Frontier.

According to the numbers, there were 1,456 flights scheduled between October through December of last year, whereas there are only 1,275 for this summer. As major carriers are pulling out, smaller city pairs are taking a noticeable hit. This is a classic thing when new markets open. Airlines "test" the market and will over time retrench back to the major city pairs. Sometimes they will leave that city pair completely, and other times they will reduce weekly frequency or in some cases merely run seasonal services. Over time, some of those routes may actually grow back to the initial levels. Though not up-to-date compared to U.S. standards, the international airport in Havana is still the most equipped to handle the capacity of incoming flights and passengers from the U.S., and thus remains the most popular arrival destination for travelers and airlines.

Policy Impacts and What They Mean for Cuba

While current policy changes threaten to undo years of work, there is also an underlying fragility to the U.S.-Cuban travel market and taking this away seems contrary to America's sense of pioneering. U.S. airlines have invested considerably in both capacity and marketing to advertise their



services. Would the government want to risk upsetting the market with a complete policy overhaul? Should travel policies to Cuba be reversed, airlines could stand to lose millions of dollars, and the direct and indirect impacts felt would be widespread.

Not only would airlines be losing out on revenue, but a greater economic impact might be felt by the local Cuban chain as jobs could be stripped. But just because the U.S.-Cuban market may be at risk doesn't mean other markets are. Interest in Cuba as a leisure destination, especially when other popular travel markets are facing threats like terrorism, from Canada and Europe continues to grow. Compared to the 116,106 one-way seats flown from Europe to Cuba in July 2016, bookings were up over 25 percent for July of this year, with 145,211 one-way seats to Cuba departing Europe. Of those bookings, travel from France and the UK has risen over 60 percent and 44 percent, respectively, in July 2017 when compared to data from the same month the previous year.

Looking ahead

Before, one could have made an argument either way as to the existence of a travel market to Cuba for Americans. Now, there is no doubt that the interest and curiosity among travelers exists. While some policy reversals have made it once again more difficult to travel to Cuba, Americans now have the desire to go. Since there is capacity available, travelers will find other ways to get to Cuba if direct air service is no longer available.

Even if more U.S. airlines continue to reduce routes to Cuba, the country will not be left in the dust. Looking from a global scale, the aviation industry is seeing continued interest from the European Union and Canada in Cuba as a tourist destination.

Never have so many aviation industry experts seen a market expand so rapidly – seemingly overnight – as U.S. to Cuba air service. The world is getting smaller, people want to travel and airlines want to and can help facilitate this. Pulling the plug now would be very difficult and may prove to be more trouble than its worth. **GSW**



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John Grant captures and analyzes complex aviation data and industry trends to provide commentary on what's driving changes in the travel market. Grant is a senior analyst and executive vice president at aviation data provider OAG, a partner at MIDAS aviation and owner of JG Aviation Consultants, Ltd. At OAG, he manages and works to enhance OAG's product portfolio and new product development.



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Blockchain, E-commerce and Al

How technology is driving air freight and cargo into new revolutions.

By Ignazio Coraci

-commerce is continually transforming the freight and cargo businesses. From supply-chain focused roots, the entire industry is now being pushed further to adapt to a much more customer-centric approach as convenience, cost and control become paramount to today's 'always on' customer culture.

The world is hyper-connected, with customers accessing a plethora of websites and platforms to make almost instantaneous purchases from nearly every area of the planet. From independent sellers and small businesses to online shopping giants

such as Amazon, the ability to sell creates the demand to deliver. As an industry, our ability to service this demand, at the right cost, quality and add value, has never been more subject to scrutiny, or crucial to our success.

Ultimately the arrival of the internet and online technology means everyone in the air freight, cargo and handling space must redesign their operations; customers expect services that are accessible, reliable, efficient, paper free and transparent.

The solution is innovative tech.



The Birth of E-commerce

Online shopping – or e–commerce, as we now know it, has been around longer than we often think. Looking at the history, it began in the 1970s, with the invention of email, but really took off with the dawn of the internet in 1990, during which time Amazon and eBay were the frontrunners. Fast–forward to the new millennium and former seedling book–seller Amazon has made online shopping the norm.

While e-commerce as a process hasn't evolved significantly since 2003 – we still create online accounts, search and choose what we want and add products to carts and enter shipping and billing information – our industry's response to it has had to, largely due to the unprecedented scale of online shopping success.

Air Cargo's Rapid Growth

According to Boeing's World Air Cargo Forecast 2016–2017, global e-commerce is projected to more than double over the next five years, growing from \$1.7 trillion (USD) to \$3.6 trillion by 2020.

The Asia–Pacific region is the fastest growing e-commerce trading bloc, with China at the forefront, as the world's largest e-commerce market with \$590 billion of goods sold in 2015 and growing.

Looking at this, it is not unreasonable to forecast that, by 2020, China's e-commerce exports alone will be bigger than the combined existing markets of the US, Britain, Japan, Germany and France. Meanwhile, air cargo traffic growth remains strong in the Europe-Asia market, averaging 6 percent growth per year since 1995 and predicted to be around 4 percent per year over the next 20. Europe to South Asia is slightly higher

at around 5 percent.

The connections are seamless, since airport ground handling services are relied upon for a large portion of transporting goods – particularly so for express delivery, where ships and tankers can't compete.

Asia Pacific and the Middle East are expected to enjoy the highest growth rates, with emerging markets in Asia and South America fueling growth at Heathrow and exports to Mexico, Brazil, India and China rising. Heathrow, where ASC Cargo operates from Terminal 4, is one of the best connected global cargo airports with an ambitious strategy for growth and an environment for innovation and quality.

Maximizing Technology

The explosive growth of e-commerce and demand for deliveries of retail purchases is driving the next revolution in freight and



cargo. We need to continually make technological changes and create solutions to reduce costs, improve efficiency, enhance flexibility and allow for greater speed and scale.

However, this isn't necessarily a case of drowning in data, rather discovering more intelligent ways of moving cargo around the world with the efficiency increasingly required.

Already we're seeing the increasing integration and digitization of the air cargo industry. As much as augmented reality (AR) may radically change a passenger experience in an airport, for example, the same technology could be applied to an airport ramp to support ground handling using AR.

Technology can make it easier and more cost-effective to embrace and implement new innovations in terms of process, products and service. It can help us to instantly

keep up with regulatory changes, including customs, security, safety, financial management and corporate governance. Automating some of our business processes will enable paperless capture and storage of vital data. All of which can be used to strengthen relationships, productivity, responsiveness, communication and share knowledge.

The International Air Transport Association (IATA) for example, is spearheading its efforts to bring the air cargo industry into a paperless era. The e-Air Waybill (e-AWB) has been introduced so documents can be shared instantly between the whole supply chain reducing transporting, processing costs and wait times.

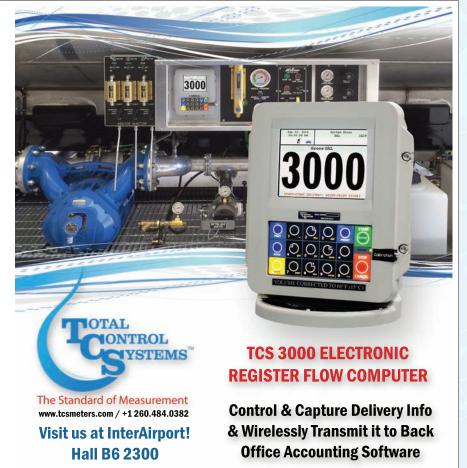
Real-time visibility is key for clients but also for end-user customers who want to be able to see where their goods are and the estimated time of arrival in a swift and straightforward manner.

While, Mercator has created an app for air cargo management and ground handling processes, Unisys has launched a cloud-based management system. 'Digistics' automatically records each transport and delivery checkpoint in the air cargo supply chain.

It provides airlines and forwarders with real-time visibility of shipments and subscribers can track and trace products quickly. The system also enables carriers to select specific automated cargo services, including inventory management, bookings, invoicing and accounting and examine performance data.

Another solution is blockchain - a technology dubbed a successor to cloud-based technology. In our industry, blockchain, the technology behind Bitcoin, could securely track all types of transactions across the air cargo supply chain so that all parties involved have record of cargo's movements in a secure, decentralized system.

For example, every time a shipment moves from one part of the chain to the





next, a blockchain system would record the transaction, creating a real-time activity log visible to the whole chain which cannot readily be altered.

By nature, air cargo is a complex process, and blockchain would help to reduce delays, costs and errors by tracking whole shipments. A complex technology, blockchain is still in comparatively early stages, but its potential to great maximum efficiency in an entirely paperless system is certainly one to watch as we move further into the 21st century.

Artificial Intelligence (AI) in Aviation

While blockchain can decentralize information from intermediaries and single, centralized institutions, artificial intelligence (AI) fits perfectly into this new futuristic model by learning from historic and real-time data to provide strategies, solutions and efficiencies free from the financial and time costs of ongoing human labor.

Flight management computer systems are



used in some aircraft to help the pilot with information and for handling purposes. It has other uses in autopilot mode, and can support automated cabin pressurization.

AI isn't new, but how we use it will evolve considerably in terms of optimizing revenue and fleet management. This also applies in developing more effective and efficient route networks and ground handling operations. Plus, refining pricing strategies that consider a wider number of factors to provide more personalized solutions for customers, working to satisfy price-competitiveness.

The Future is What, Not When

Opportunity and tech will continue to play an increasingly pivotal role in the air freight and cargo industries, improving our performance and responsiveness to customers' changing demands.

The next question we should be asking ourselves is not *when* to embrace new technologies, but rather *what* are the technologies on the horizon that we can prepare for and embrace? **GSW**



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Commitment, attitude and action are all required for a service culture and they correspond to the heart, attitude and action of the service provider.



most unique and innovative offering on the market. In our world of globalization, technology and international competitiveness, it becomes harder and harder to focus on technical product and service features if an organization wants to stand out.

The real differentiator is people, because it is not easy to replace (or duplicate) people who understand and deliver excellent customer service on a consistent basis. Companies and the people who work within them can create a service culture by nurturing and growing three critical ingredients: commitment, attitude and action. The presence of these three ingredients provides an environment where a service culture can grow. Commitment, attitude and action are all required for a service culture and they correspond to the heart (commitment), attitude (mind), and action (body) of the service provider.

Service Commitment

The meaning of commitment is to pledge or engage oneself. People who are committed to excellence in the service they provide have a clear understanding why their jobs are important, and how they are making a difference for their customers (whether they are external or internal customers). Committed service providers understand that whether they are the person interacting with the client or repairing an aircraft, their work has value, meaning and essentially can help ensure that the customer will return time and again.

Commitment is an emotional connection to the work of an individual, and it is precisely that connection that directly links commitment to the heart. A heartfelt commitment to one's work will ensure that each task is completed with enthusiasm and, in the process, exceptional and seamless customer service will be delivered. If it is understood that a service is being delivered instead of just a task, such as answering the phone, then work will no longer be an unending list of "to do's", but will become a source of gratification and provide a sense of accomplishment.

It is the above–mentioned heartfelt commitment that forms the foundation of any successful service culture. And it is that service culture that gives organizations a competitive advantage over their competition.

A product or price advantage can easily be replicated in today's global economy and technologically innovative world. But a strong customer service culture and the people behind it can never be duplicated.

A product can easily be back engineered and placed on the market. But it is the service-committed representative's genuine smile and warm "Hello" while building a relationship that ultimately makes the lasting difference.

A team that consistently moves in the same direction with the same mission, under the umbrella of service commitment feels a profound sense of fulfillment and satisfaction by serving others. And it is precisely that unified team that every manager should strive to cultivate in an organization.

Service Attitude

When someone believes in what they do, it is not hard to find motivation. The reason behind the motivation could be as simple as being excited and eager to complete the task ahead, no matter how challenging it may seem to be.

A strong commitment fuels a strong service attitude. And because attitudes are determined by the individual, service atti-

tude is directly connected with the mind.

The psychology of the mind is a vital factor in determining one's attitude and

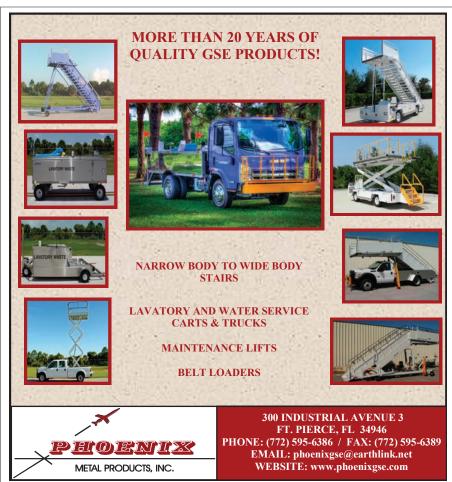
a positive attitude is directly correlated to individual fulfillment, happiness and health.

In service delivery, as in other areas of life, things do not always go as planned. Schedules change, people do not show up, traffic happens, etc.

But as Donald Porter, vice president of Brit-

Attitude

Commitment



ish Airways. once said, "Customers don't expect you to be perfect. They do expect you to fix things when they go wrong."

A positive and upbeat attitude is indeed an essential factor when tackling those things that go wrong. Instead of focusing one's energy on the grim fact that something did not go as planned, a positive attitude will serve as a guide to the solution of how to go around the obstacle and, in the end, impress and please the client.

In today's global economy, mergers and acquisitions are also quite common. Companies acquire and merge with other entities, departments may combine or separate, new management may be put in place. This can be quite stressful for management and employees as they wonder what may happen next or what the new leadership will be like.

One of the best pieces of advice in this

situation is: "Keep a positive attitude." Focus on how to help and contribute to the two companies merging smoothly, instead of obsessing on the fact that things are changing. That simple shift in attitude can mean the difference between feeling a part of the new entity and being at odds with it.

Everyone has bad days and everyone hits traffic on the free-way, but everyone has the free will to choose their own attitude about how they will

Action

Attitude

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deal with it. That little shift, in the end, can make all the difference.

Service Action

Service Question: What do you call a person who is committed to a cause and has a great attitude but never gets around to taking the action to make things happen?

Answer: a. Unemployed, b. A philosopher, c. A procrastinator, or d. All or any of the above

The answer to the service question is "D. All or any of the above." It is a common phenomenon, people with big dreams and plans. They are sold on the vision of a better life for themselves and others. They are infinitely positive, and just talking to them gets others excited.

These are the people who want to start their own business, strive for the big promotion or have a big plan for the future.

They are emotionally committed and have that positive mental attitude.

There is only one problem. Their hopes and dreams remain hopes and dreams because they never take any steps to move toward those hopes and dreams.

There is no action.

These are the people who are philosophers because they have all the answers and can tell everyone what to do even though they have not shown that they can do it themselves.

These are the people who have big plans - and they assure everyone that they will

start tomorrow or next week, even though tomorrow or next week never seems to come. Action is associated with activity, with doing.

Service action is the third ingredient of service.

Companies and the people who work within them can create a service culture by nurturing and growing these critical three ingredients that have been expanded on over the last three articles: Service Commitment (Heart), Service Attitude (Mind), and Service Actions (Body). GSW



ABOUTTHE AUTHOR:

Christine Hill, executive vice president and co-founder of ServiceElements, has been in teaching, facilitating, and coaching for 30+ years. She has a Master's in psychology/ education from Northern Arizona University and is passionate about helping organizations, teams, and individuals with development of human interaction skills.







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2017 IGHC Innovator Awards Winner

The company's award-winning baggage handling system is 95-percent automated, and utilizes gravity to reduce the number of occupational injuries sustained from manual lifting.

By Josh Smith

new vision for the way baggage is processed and handled at airports around the globe garnered the attention of hundreds of attendees at the IATA Ground Handling Conference (IGHC) in Bangkok earlier this spring.

As part of the 30th annual conference, organizers implemented the IGHC Innovator Awards, welcoming businesses to showcase new ideas for the ground handling industry that enhance customer experience through increased quality and safety, simplified processes and modernized systems, or improve competitiveness by optimizing costs, increasing revenues and reducing injuries or damage.

The intelligent baggage handling system developed from Danish company BBHS A/S was selected by IGHC delegates as the inaugural winner over Deolan's data-platform dedicated to ground operations efficiencies and a virtual reality training program from Qantas.

While accepting the award, Martin Sattrup Christensen, the CEO of BBHS, explained that while the longest part of a piece of luggage's journey is already mechanized, certain breaks require luggage to be handled manually.

Those are the areas the company seeks to

"We strongly believe that we can take the baggage handling industry into the 21st century. And I think the best way to test that was joining this competition," Christensen says.

The system has been in place at Billund Airport for more than two years, and Christensen says staff and management representing the airport, airlines and handlers are "extremely satisfied there working with the system."

BBHS's baggage handling system is 95-percent automated. The system organizes luggage in



batches and prioritizes it based on airline requirements to save time and reduce the size of the fleet of carts on the ramp.

What's more, it utilizes gravity to help load and unload bags to avoid injuries often sustained by ground crew engaged in manual labor while gently handling the bags to reduce damage. In fact, Christensen says in Denmark, where the system is being utilized, mishandled bags have been reduced by more than 50 percent.

The company's baggage handling system doesn't tear down existing systems, according to Christensen. Rather, it adds on to and complements current systems, which he says creates advantages for airlines, airports and ground handlers by improving quality, work environment, productivity and profit.

The system uses specially designed carts that are capable of rotating 360 degrees. Additionally, the cart's shelves are equipped with rollers, allowing bags to roll off gently.

"Bags are moved forward in the carts due to gravity, which is also why we can load and unload carts as quickly as we're doing," Christensen says.

He explains upon arrival, baggage can be delivered in less than 10 seconds per cart to the arrival belt.

"We have a much higher cart utilization because we don't use carts for storage," Christensen continues. "We only use them to move bags from the baggage hall out to



Poor baggage handling is the **most common source** of flight delays.

the ramp, and on the way back again."

Due in part the carts being kept in motion as much as possible, the system can be fitted into nearly any baggage hall or handling system, as BBHS can optimize the use of areas where carts were previously parked to load and unload bags. Because of improved effiency, the amount of carts needed can be greatly reduced.

Additionally, capacity boosters keep bags

until they are ready to be loaded. Then when a plane is ready, they release the bags onto carts. This process takes five to 10 minutes, according to BBHS.

Baggage can be sorted into six different categories, allowing bags to be traced from drop-off to delivery. Batching also allows the system to release transit bags into the system first, then priority bags and the remainder of the luggage can be released to the reclaim belt. Bags can be marked as unauthorized to load, so they can be removed from the system easily. This is all controlled through an operator interface that assists users with the process.

Other value propositions include less staff needed to operate the system, which offers an aggressive payback; and the possibility for improved insurance premiums because of reduced manual lifting.

In his IGHC presentation, Christensen said 22 million bags go missing annually. Poor baggage handling is the most common source of flight delays. As a result, lost, damaged and mishandled bags cost airlines and the aviation industry billions of dollars in addition to tens of thousands of occupational injuries.

BBHS believes the system can greatly reduce the amount of mishandled bags.

"It delivers a lot of efficiency gains that leads to a better financial outcome," Christensen says. "It leads to cost savings for airports, airlines and ground handlers by using this system." **GSW**





P6000 BAGGAGE CHUTE Page Industries

Page offers the P6000 Baggage Chute, which utilizes modern manufacturing techniques making it easy to install. The P6000SP Service Platform can be mounted to any baggage chute for easy and safe storage of chocks, safety cones and wands, and it includes a secure FOD bin.

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CARGO TRAILER Clyde Machines Inc.

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TOW TRACTORS Textron GSE - TUG Technologies Corporation

TUG Technologies offers tow tractors with capabilities ranging from 3,000–78,000 DBP. Tow tractors are available in diesel, electric and gasoline.

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BAGGAGE CART R.J. Design LLC

This design of baggage carts includes a dead man switch on rear and a floor stop brake on front. The lightweight aluminum holds 500 pounds on top shelf, and the cart's width holds two bags deep.

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ULD EXPLAINED

ULD Explained provides simple, jargon–free explanations with comprehensive illustrations covering the basics of ULD operations and handling. The ambition of ULD Explained is to fill a shortage of basic, easy–to–read and easy–to–uunderstand ULD material for those who are new to ULD or those who are working with or around ULD but have never had the benefit of formal instruction.

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BAGGAGE BUMPERS American Permalight Inc.

Permalight foamy cushioned safety bumper guards are made of durable, recyclable polyurethane foam and easy to install on conveyor belts, racks, shelves, columns, protrusions and sharp corners. They help prevent employee injury from bumping into obstacles and avoid costly equipment damages. The alerting bright yellowblack foam bumpers are 39-inch standard length with a few shapes also available in 16-foot rolls.

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BAGGAGE CART ROTISSERIE Merrick Machine

The Baggage Cart Rotisserie offers the ability to rotate the cart safely and easily to a comfortable work position, making repairs easier and faster. The Baggage Cart Rotisserie is manufactured at company headquarters in Alda, Nebraska. The company also manufactures a line of tarmac dollies for airplanes and helicopters.

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WALK-BEHIND BELT LOADER **FAST Global Solutions**

FAST Global Solutions offers a walk-behind belt loader that features easy, safe operation at a fraction of the cost of drivable belt loaders. FAST eliminated the drive components to increase the unit's longevity, lower maintenance requirements and reduce costs for air travel and cargo handling industries. It increases safety and lessens liability because its stable, low profile minimizes the chance of tipping, and the brakes engage automatically when the operator releases the tiller handle.

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CT5G BAGGAGE TRACTOR **Charlatte of America**

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BAGGAGE UNLOADER BEUMER Group

The Baggage Unloader from BEUMER Group transfers bags from a container onto a conveying line in the airport, allowing operators to slide bags onto the conveyor rather than lift them. This technique reduces the risks of operator injury and damage to baggage and enables faster, more efficient unloading of unit load devices (ULDs).



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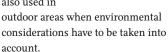
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Do We Communicate Effectively?

Regardless of the task, clearly communicating goals and expectations is vital for a successful result.

ommunication is a regular topic here at *Ground Support* Worldwide, but it's often in reference to headsets and related equipment found on the ramp.

However, while working on the inaugural Global Ramp issue, it began thinking about the importance of the actual act of communicating. Between the sales and editorial teams planning the size of the magazine, contributing writers proposing topics from around the world and then completing those assignments, and the graphics and production departments putting the finishing touches on this issue, a lot of people and resources were required for this project to turn come together successfully.

Thankfully, every person on our team kept others informed of his or her progress, and our largest issue of the year was completed on time.

The frenzied process of producing a trade publication is not unlike the atmosphere on the ramp. There are many hands completing crucial tasks in a timely fashion to produce an efficient, quality turnaround.

What ever the process, communicating effectively can enhance the result.

Think about the way you communicate with your contemporaries, whether working out on the ramp, in a manufacturing setting or in an office building.

Are your team's goals understood by everyone? Is everyone pulling in the same direction? Has miscommunication created problems that would have otherwise been avoided?

If your team communicates well, then

If not, consider reevaluate you communication

Keep in mind, preferred communicate meth-

Some people respond better to verbal communication, while others benefit from an email or other written instruction.

Be willing to adapt with your team so that everyone has a clear vision of what can be accomplished, and encourage others to keep lines of communication open, so goals can be accomplished capably, professionally and cost-effectively.

1056







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